Diversity in management accounting practice through the ABC paradox: Testing an Institutional perspective

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Abstract

This study investigates the ability of Burns and Scapens' (2000) Institutional Framework, drawn from Old Institutional Economics, to explain diversity in management accounting practice. The framework contends that management accounting practices can shape, and be shaped by, the taken for granted ways of thinking (institutions) that exist within an organisation, and is offered in response to the perceived inability of neo-classical economics to explain diversity in management accounting practices (Burns & Scapens, 2000; Soin, Seal & Cullen, 2002; Scapens, 2006). This inability contributes to uncertainty regarding the value or relevance of the management accounting technique studied. One area in which this is particularly apparent is that of Activity Based Costing (ABC) where a paradox has emerged: while ABC is reported as being a superiour costing technique, the lack of widespread use thereof implies otherwise (Gosselin, 1997).

This study tests the ability of the Institutional Framework to explain the change in management accounting practices that occurred in a medium sized South African university during the seven year period from 2000 to 2006. The case presents a situation where ABC might seem indicated, but instead a uniquely tailored response was devised.

This case demonstrates the constraining influence of institutions on management accounting change and shows how institutions standing in opposition to change were altered through management processes, which is of practical relevance to management wishing to effect change successfully. Further, the study shows that that the relationship between economic considerations and institutional influences are not as suggested by the theory, and that the link between economic rationality and the institutional framework can be readily articulated.

Key words: Institutional Framework, Old Institutional Economics, Acitivity Based Costing, cost allocation

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[1] Refer to Appendix 13 for a detailed summary of the corroborative interviews relating to the various ways of thinking identified by the Finance Department.

Diversity in management accounting practice through the ABC paradox: Testing an Institutional perspective

CHAPTER 1
INTRODUCTION

This study tests the ability of Burns and Scapens' (2000) Institutional Framework to explain the change in management accounting practices that occurred in a medium sized South African university during the seven year period from 2000 to 2006. Such a study is opportune as the potential of the framework to explain diversity in management accounting practices is largely unexplored (Scapens, 2006).

This Institutional Framework is offered in response to the inability of neo-classic economic theory to explain diversity in management accounting practices. It draws from Old Institutional Economics (OIE) and contends that management accounting practices can shape, and be shaped by, the taken for granted ways of thinking and doing (institutions) that exist within an organisation. Economic rationality is consequently not the sole determinant of management accounting practices and the influence of economic considerations on management accounting change may be eclipsed by prevailing institutions (Burns & Scapens, 2000; Soin, Seal & Cullen, 2002; Scapens, 2006).

One of the areas in the literature where unexplained diversity is particularly conspicuous is Activity Based Costing (ABC[2]) (Gosselin, 1997; Foster & Young, 1997; Lukka & Granlund, 2002). This is despite the issue of cost allocation being one of the most widely debated topics (Modell, 2006). The predominant perspective informing this debate is that of economic rational choice (Lukka & Granlund, 2002; Modell,

[2] References to ABC include references to Activity Based Budgeting (ABB) and Activity Based Management (ABM). Distinguishing these is not important for the purposes of this study as the terms have become quite synonymous (Soin et al, 2002)

2006). The result of this body of research is a paradox that remains unresolved more than a decade after it was considered by Gosselin in 1997:

> *If Activity Based Costing is a superior technique that restores the relevance of cost allocation techniques to modern operating environments, why is it not used more widely?*

The case investigated in this thesis presents a situation where ABC might seem indicated, but was not considered by the organisation concerned. Instead a uniquely tailored response was devised that avoided any form of overt cost allocation. This case provides a setting to test the ability of the Burns & Scapens Framework to explain the process of change that resulted in the non-adoption of ABC where technical considerations indicated ABC to be of potential benefit. Would the framework be able to explain a situation central to the paradox in the literature?

In order to develop the research objectives and questions for this study, further consideration needs to be given to the following:

- the relationship between diversity in practice and the ABC paradox, and the consequences for an explanatory theory articulating the relationship between these;
- the nature of the Institutional Framework; and
- the circumstances that form the subject of the case study.

Background information on each of these aspects is presented in Section 1.1 which follows.

1.1 Background

1.1.1 Diversity in the ABC Literature

A theory able to explain diversity in management accounting practice is important as unexplained diversity brings into question the relevance of the literature to practice.

The ABC literature provides clear illustration of this. The paradoxical situation of great reported benefit juxtapositioned against low uptake creates uncertainty regarding the technique itself.

The ABC paradox arises as the ABC and cost allocation literature offers contradictory and inconsistent evidence regarding its ability to deliver on the promised benefits. Attempts to explain this paradox are unsatisfactory, as interpretations are usually based on a narrow perspective of the phenomena and underpinned by a specific set of assumptions through which the authors interpret management accounting practice. The result is a gamut of competing theories, many of which do not comfortably co-exist. This is unsurprising as the discussions present different evidence, address different aspects of the paradox and approach the debate from different theoretical perspectives which largely do not recognise the existence of the other theoretical perspectives. There has been little attempt to understand the body of literature as a whole. No communication structure has been established that explains the articulation between the various theories. Lukka and Granlund (2002) conclude that the isolation of the various discussion circles has resulted in the unfruitful development of knowledge in this area and voice concern that this problem continues to be ignored by scholars.

The inconsistent, contradictory and inconclusive nature of the literature that allows the ABC paradox to persist across decades is not unique to ABC. Foster & Young (1997) note that in the same way that the management accounting literature does not have clear standards to answer if an ABC system is better than a traditional system, there are many other management accounting disputes that recycle the same familiar arguments over many decades without any agreements as to the type of evidence that would settle the issue and so the same underlying dispute continues without resolution.

The use of a framework in this study that seeks to offer insight into diversity in management accounting practices in general, recognises that the problem of unexplained diversity is not unique to ABC, but is pervasive throughout the management accounting literature (Foster & Young, 1997). As the framework is recently developed, it has potential to offer new insights into the problem rather than rehashing old debates in a different context.

1.1.2 Institutional theories

The inability of neo-classic economic theory to explain diversity in management accounting practices has become the subject of increasing debate in the management accounting literature and alternate approaches to explaining this diversity have developed (Baxter & Chua, 2003; Modell, 2006).

Recent approaches (Burns, 2000; Burns & Scapens, 2000; Modell, 2002; Modell, 2006; Scapens, 2006) argue that management accounting practice within an individual organisation is not only a function of rational economic decision making, but is also affected by broad systematic trends across organisations, as well as factors unique to an organisation. Consequently "the complex mish-mash of inter-related influences which shape practices in individual organisations" (Scapens, 2006: 1) needs to be understood in order to make sense of diversity in management accounting practices. These arguments draw heavily on institutional theories and suggest that neo-classical rational choice approaches are incomplete (Ryan, Scapens & Theobold, 2002) as they do not account for internal and external factors that also shape practices in individual organisations (Scapens, 2006).

Burns and Scapens (Burns & Scapens 2000; Scapens 2006) and Modell (2002; 2006) offer institutional frameworks that seek to bring a new perspective to understanding diversity in management accounting practice and new insight into inconsistent and contradictory evidence in the literature. These socially orientated frameworks draw from Old Institutional Economics (OIE) and New Institutional Sociology (NIS), respectively. NIS considers the broad external environment and pressures that may explain conformity amongst organisations, whereas OIE considers the institutions within an organisation that shape the actions and thoughts of individual human agents.

Diversity in management accounting practice is the result of the collective unique practices of individual organisations. In order to understand how diversity comes about it is necessary to study *individual organisations* in order to observe how various inter-related influences shape practice in that organisation. In other words, in order to understand management accounting diversity it is necessary to understand management accounting change (Scapens, 2006). Burns and Scapens' Framework, based on OIE, is provided as a basis for studying the process of change in management accounting practices within an individual organisation and offers explanation of how the various influences on management accounting practice inter-relate within an individual organisation.

Burns and Scapens (2000) and Scapens (2006) recognise the need to test, further develop and extend the framework against practice. A few case studies have been carried out with the objective of either identifying extensions to the framework beyond OIE or to study an organisations' response to changes in management accounting practices (Soin et al, 2002; Scapens, 2006)[3]. However, no cases could be found that investigated the influence of institutions on the shape of the management accounting practices themselves.

Given that the Institutional Framework is based on a rejection of neo-classical economics (the core of the management accounting literature) and instead assumes that prevailing institutions are the predominant influence on management accounting practice, the lack of cases testing this assumption is surprising. The lack of work on this aspect is a gap in the literature.

[3] These are discussed in the methodology and literature review chapters.

1.1.3 The case

The case presents the scenario where a university facing financial crisis needed to reverse the trend of negative financial performance that had caused the situation. The Finance Department, tasked with driving the process of financial recovery, effected numerous changes to the university's management accounting practices in order to prompt the changes in financial management that they regarded as necessary if financial recovery was to be achieved. These changes included detailed consideration of the management of costs and overheads within the organisation. The outcome of the case was that the negative trend was successfully reversed and the university's financial situation greatly improved.

Many of the objectives and characteristics of this case are indicators in the literature that ABC would be the economically rational solution: a large organisation wished to determine the profitability of various business units, encourage efficient resource utilisation and create awareness of the units' responsibility for organisational overheads. In addition, a great deal of complexity exists with the business units being substantially different from one another in terms of their resource requirements. These circumstances could be described as a "text book" prescription for ABC. Yet, the organisation determined instead that overhead allocation should best be avoided.

This case provides opportunity to investigate the ability of Burns and Scapens' Institutional Framework to explain the process of change that resulted in the favouring of a unique system in circumstances which indicated ABC might be beneficial.

1.2 Research objective and questions

This study investigates the influences on the Finance Department's decision to institute certain changes in the management accounting practices of the university. The potential of the Burns and Scapens' Framework to explain the outcome in this case is tested; an unexpected variation in management accounting practice, relating to one of the most contentious areas in the management accounting literature.

The objective of this study is to test the ability of Burns and Scapens' Institutional Framework to explain change in management accounting practice. The specific questions this study asks are:

1. How did the institutions that existed within the organisation influence the shape of the management accounting changes instituted by the university's Finance Department during the seven years from 2000 – 2006?;
2. Why did the Finance Department choose to make the changes that they did?; and
3. What was the nature of the relationship between economic considerations and institutional forces in shaping the management accounting changes to be made?

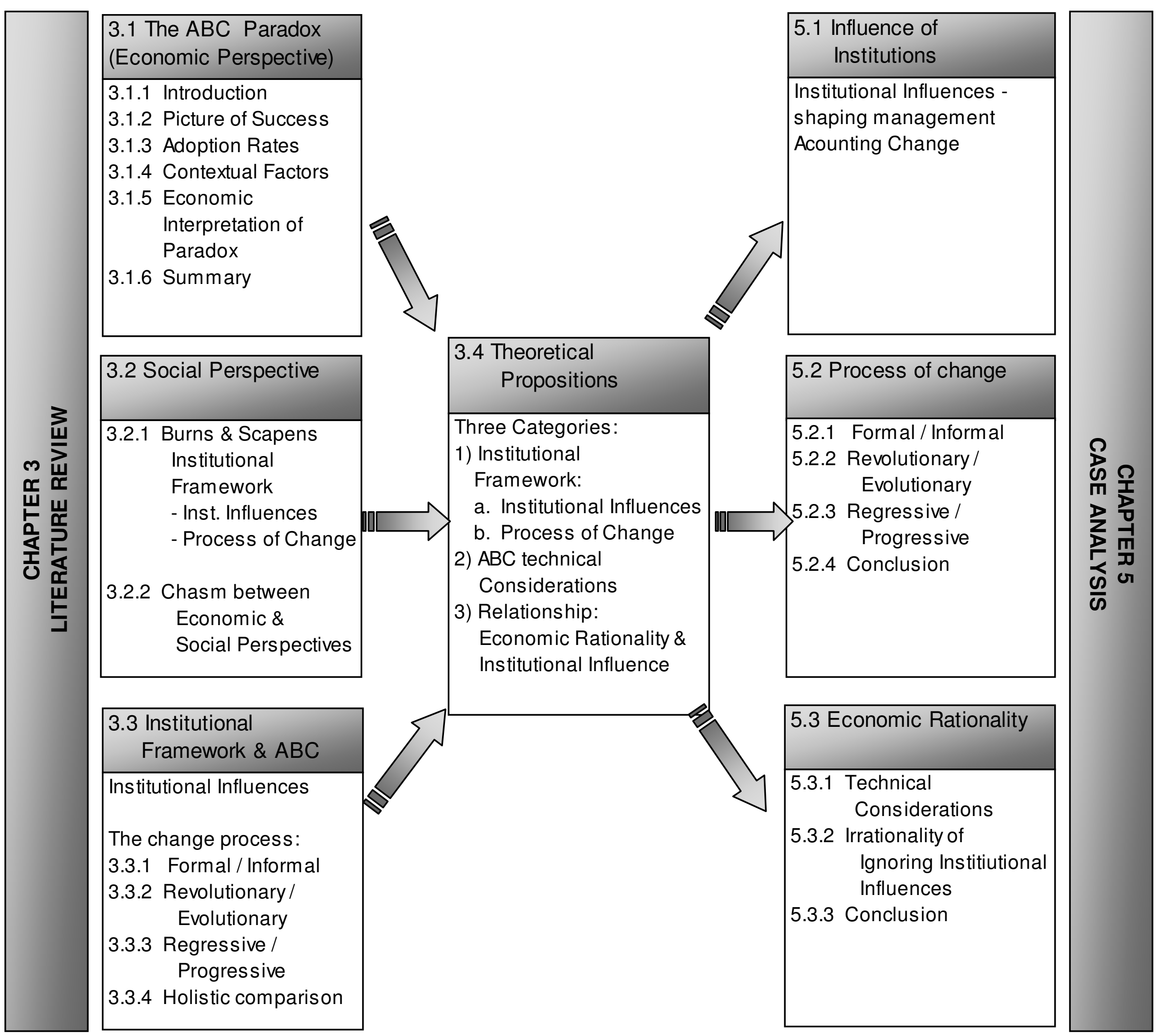
1.3 Thesis structure

The remainder of this thesis is structured as follows: chapter 2 describes the methodology and identifies the limitations inherent in this study. Chapter 3 reviews the literature in three distinct but related parts:

- the first part analyses the ABC literature with a focus on the ABC paradox;
- the second part reviews the Institutional literature; and
- the third part considers the relationship between these two bodies of literature.

The literature review culminates in the development of the theoretical propositions against which the evidence of the case will be analysed. The case is described in chapter 4 and analysed in chapter 5 in terms of the framework derived from the literature, as expressed by the theoretical propositions. The central role of the theoretical propositions in relating the literature review to the case analysis is depicted in Diagram 1. The theoretical propositions are developed from a consideration of each of the two separate bodies of literature, as well as the consideration of the relationship between these, and the propositions are grouped into these three categories. The case is analysed by a consideration of each category in turn, with the weight of the analysis given to an examination of the institutional framework that is the focus of this study (5.1 & 5.2), while technical considerations and the relationship between economic rationality and institutional influences are concluded on in Section 5.3. Chapter 6 presents conclusions and identifies opportunities for further research arising out of this study.

Diagram 1: Theoretical Propositions: Relating Literature Review and Case Analysis



CHAPTER 2
METHODOLOGY, LIMITATIONS AND SCOPE

The methodology of the study is discussed in two parts. The first relates to the case study and the second relates the literature review. The case study methodology is discussed first as this has implications for the overall structure of the work and the function of the literature review.

2.1 Case Study Methodology

2.1.1 Selection of an explanatory case study approach

An explanatory case study approach was selected as the appropriate research strategy for this study for several reasons. Firstly, the influence of institutions on the process of management accounting change is a complex social phenomena that is particular to a real-life context. The causal links presumed in Institutional Theory are too complex to be studied by other means. The case study method allows the contextual conditions to be covered and the holistic and meaningful characteristics of real-life events to be retained (Yin, 2003).

Secondly, the nature of the Institutional Framework is such that it is necessarily tested through case studies as it is only through the detailed investigation of individual organisations that the inter-relationship between the various influences that shape management accounting practice can be observed (Scapens, 2006). The necessity to test, develop and extend the framework through case study is recognised by Burns and Scapens (2000) and this call is re-iterated by Scapens (2006).

Thirdly, the explanatory case study approach is appropriate as the nature of the first two research questions to this study are *how* and *why* questions, which require operational links to be traced over time (Yin, 2003). In addition to the question of why the Finance Department made the changes they did and how institutional forces shaped these changes, this study also asks *what* the relationship between economic and institutional influences was in this process. This last question is exploratory but also appropriate to be investigated by case study for the same reason.

2.1.2 Design of the explanatory case study

The results of both explanatory and exploratory case studies are generalisable to theory through the process of analytic generalisation (Yin, 2003). In this study pattern-matching logic is used whereby the empirical evidence in the case is compared to the theoretical propositions drawn from the literature is used. As the relationship between Institutional Theory and economic rationality is not given much consideration in the literature, several rival propositions will be presented and compared to the facts of the case to identify which proposition provides the best match.

2.1.3 Data Collection

Information was gathered over a period of three years (2007 – 2009) by a series of lengthy, detailed interviews and archival analysis. Interviews were held with the two individuals in the Finance Department who were primarily responsible for instigating the changes, being the university Executive Director Finance (CFO[4]) and the Head of Management Accounting and User Support. Corroborative interviews were conducted with two other members of the university senior executive and three deans. The approach to these interviews is described in Section 2.1.4 below. All persons interviewed were in office during the period of this study.

The two members of the senior executive were the Senior Deputy Vice-Chancellor (DVC) who was also Vice Principle and acted for the Vice-Chancellor on

[4] The nature of this role is the equivalent of the Chief Financial Officer of a commercial organisation, and CFO will be used for clarity, when referring to the Executive Director Finance.

administrative matters, and the Chair of the Finance Committee (the Chair) at the time. Both were knowledgeable of both the environment within the university at the time and of the financial changes that took place. Furthermore, the CFO reported that he consulted the Chair frequently regarding the changes that were made and debated the rationale for these. The Chair was involved with the university in a variety of fora beyond the scope of the Finance Committee and would have been well acquainted with the internal workings and ways of thinking that existed within the university at that time. The DVC also had intensive interactions with the Finance Department, the senior leadership of the university and the deans as a result of the specific responsibilities of that office. Both the DVC and Chair can be regarded as independent parties with respect to the relationship between the Finance Department and Deans. Both DVC and the Chair were retired at the time of the interviews.

The three deans who were interviewed were all appointed to the position of dean in either 1998 or 1999 and remained in their posts for the majority of the period investigated in this study. They represent the Law, Engineering and Science Faculties. These deans are still employed by the university in capacities other than dean. The DVC interviewed also served as Acting Dean of Humanities for a period during his time as DVC and had been the dean of this faculty prior to being appointed as DVC. Consequently, four of the six faculties are accounted for in these interviews[5]. The deans of the remaining faculties were not interviewed for several reasons, including their deanship not covering the majority of the period under review and not being contactable due to health and other reasons. As two thirds of the faculties were represented this was sufficient to achieve adequate reflection on the response of the deans to the changes that took place. The reports of the interviewees were consistent to a high degree on all matters of significance and so further interviews were not considered to be necessary for the purposes of corroboration.

[5] The changes in financial management practices described in this case applied to all units within the university, including both faculties and support departments. However, as altering the financial management of faculties was a key objective of the changes made, faculties are focussed on in this study.

Additional and corroborative evidence was gathered through archival analysis of publicly available information including annual financial reports, faculty reports, a published case study which focused on a particular aspect of the change (Uliana, 2002) and a presentation document of an eight year review of the university's financial management history to the senior leadership of the university for the handover between outgoing and newly appointed Vice-Chancellors in February 2008. Further factual information was obtained electronically from the physical planning unit.

The sources of information were narrowly selected in line with the study's objective to understand the influences that shaped the actions and thoughts of the individuals responsible for the changes, in this case the senior leadership of the Finance Department. Bias was controlled for in two ways: firstly, through corroborative interviews with senior executives of the university and deans (discussed in Section 2.1.4 below) and secondly, the CFO[6] was initially unaware of the theoretical framework that had been selected for this study and so responses could not be dictated by the theory that was to be applied. All other interviewees were not aware of the specific direction of the study or the framework with which it would be analysed. The author is an employee of the organisation concerned, but was unaware of the management accounting practices referred to in this study prior to commencing the research.

2.1.4 Ensuring the quality of the case

This case reports on the critical changes in management accounting practice that occurred over a seven year period, and key influences thereof. The greatest challenge to the validity of this research is ensuring that the events and influences reported in this study were indeed those that were critical to the scenario investigated and not merely based on the researcher's impression thereof. The process of data collection was important in this regard. Multiple sources of information were used and compared, not only to avoid bias, but also to identify common themes that were prominent in the

[6] Who is also the supervisor of this thesis.

various sources. The interview protocol for the corroborative interviews was of particular importance in ensuring critical aspects were reliably identified.

The interviews took the form of a relatively unstructured interview with interviewees being asked to begin by responding to a broad question (to describe the decision making processes and structures within the university with a focus on the period 1999 – 2007). The general area of investigation was communicated to interviewees, being the changes that occurred in the financial management of the university over the specified period.

The objective of asking interviewees to respond to a broad opening question was to establish the key attributes of the university's decision making over this time in the minds of the interviewees. This allowed the interviewees to share their own way of thinking and in doing so provide an indication of the prevalence and strength of the ways of thinking that existed within the university at that time. It also provided a control for checking for any significant issues that had not been mentioned or viewed as important by the Finance Department. Many issues or ways of thinking that were considered by the Finance Department were raised by the interviewees without prompting from the interviewer and further background information and interpretations on events and rationale behind decisions was gathered in this way. Where the interviewee did not raise a matter that was of interest in corroborating the Finance Department's reported decision making, the interviewer questioned the interviewee specifically on these at the end of their respective interviews. The insights are reported in Section 4.2.

In addition to the above, key informants reviewed relevant parts of the draft case study report in order to provide further assurance.

The time period here includes one year before and after the period reported on in this study in order to establish if there were any important events close to this study that may be pertinent to the case and to provide context for the interviewees' responses.

2.2 Literature Review Methodology

2.2.1 The ABC Literature Review

The ABC literature review communicates the message transmitted by the body of literature as a whole. The literature was drawn from a wide range of sources covering two decades, scholarly and professional, as well as consultants' webpages, covering two decades. Core literature was ensured by comparing the literature selected to previous literature (e.g. Krumweide, 1998). The literature was grouped into types (case studies of the benefit and use of ABC by academics and consultants; surveys investigating the use of and user satisfaction with ABC; surveys of adoption rates; analysis of factors associated with the adoption and use of ABC) and compared and contrasted in order to assess the extent of disagreement within the literature. The conclusions regarding the level of fragmentation of the literature and confusion of overall message were compared to and found to be consistent with the thorough review conducted by Lukka and Granlund (2002) seven years earlier.

A thorough search of the South African accounting journals was carried out to establish whether any case studies regarding cost allocation in South African universities existed. The search was conducted by reading through the titles of all articles published in the two leading South African journals[7]. None were found. Two articles were found in international journals that related to allocations in tertiary institutions (Heaney, 2004; Modell, 2006) but these did not address internal institutions influencing the selection of overhead allocation systems.

2.2.2 The Institutional Theory Review

A theoretical framework was required that offered a different perspective on the lack of agreement in the literature in order to seek to explain for diversity in management

[7] *South African Journal of Accounting Research* and *Meditari Accountancy Research*

accounting practice[8] and so the literature review was broadened. Burns and Scapens (2000) offer a framework based on OIE to explain diversity in management accounting practice with reference to the existing institutions within organisations. A search of the literature on this institutional theory rendered only a few academic papers (e.g. Burns & Scapens, 2002; Soin, et al. 2002; Scapens, 2006) and these authors express the need to extend the theoretical framework through case study (Scapens, 2006).

The ABC literature is considered in the light of the Burns and Scapens Framework in order to consider the relationship between the two bodies of literature and illustrate how the framework may have the potential to explain different overhead cost allocation practices.

The literature review concludes by drawing the theoretical propositions from the literature review against which to analyse the results of the case study, as discussed in 2.1.2 above.

2.3 Limitations

2.3.1. Limitations relating to the literature review

This study does not consider other arguments put forward for low adoption rates of ABC. For example, Gosselin (1997) briefly considers whether low levels of adoption may be the result of a lag in management accounting practice whereby innovative techniques take time to be absorbed. This argument has its context in the debate around the loss of relevance. However, the argument is contrary to Lukka and Granlund's (2002) observation that there seems to be a considerable time lag in the opposite direction, between the emergence of the innovation in practice and the appearance of articles in research journals. It would also be difficult to argue that a time lag is responsible for low adoption levels of ABC more than two decades after its

[8] As noted by Foster and Young (1997), the inconclusive nature of management accounting literature is not unique to ABC.

introduction. Gosselin (1997) offers contextual and organisational reasons for low adoption levels. The purpose of this study is not to debate these findings except to note that the literature comprises a collection of such studies showing diversity of results which creates inconsistency in the message of the literature as a whole.

The consideration of the relationship between the ABC literature and Institutional Framework is restricted in that the majority of the ABC literature is based on neo-classical economic theory which does not recognise the existence of institutional forces. There is little evidence of any overlap between these two theories in the literature or common ground from which to build. The relationship between the two bodies of knowledge is considered circumspectly.

2.3.2 Limitations regarding data collection

Only seven people were interviewed, belonging to three related groups. While the reasons for this are explained in Section 2.1.2, this is a small number of people to conclude on the strength and prevalence of institutions presumed to be organisation wide. Care must be taken in drawing conclusions relating to the broader university beyond the Finance Department, which is the focus of this study.

The only sources of information by which institutional forces could be investigated was interviews. As institutions are taken for granted assumptions regarding how things are done, these would not be expected to be documented. Furthermore, as institutions change over time interviewees' views may be different at the time of the interviews from their views at the time that the changes occurred, particularly with regard to the strength of these views. Conclusions regarding the strength and prevalence of existing organisations were drawn from limited evidence, which may not be reflective of the situation at the time. Corroboration was consequently a critical aspect of this study to ensure reliability (this is discussed in Section 2.1.4).

2.4 Scope

Unlike the majority of studies that investigate the institutions within an organisation, this study did not investigate the mechanics by which the institutions described in this study were formed. Consequently, the study relies on the insights of the interviewees in this regard. This is considered sufficient for the purposes of this study as it is the objective of this study to investigate how management accounting change was influenced by management's awareness of prevailing ways of thinking and not how those institutions came about. The lack of evidence as to how those institutions were formed cannot be interpreted as a lack of proof of the existence of the institutions, as the existence is attested to by several corroborative interviews. While other studies investigate how institutions are formed they do not investigate how existing institutions influence changes in management accounting practices, which this study does.

Neither does this study seek to prove that the institutions existed throughout the university in the ways described. It accepts the evidence from the various sources that the ways of thinking were real in the minds of the protagonists. The point of this study is that the ways of thinking in the university existed in the perception of the Finance Department, and influenced their thinking and the changes in management accounting practices that they introduced. The extent to which these institutions existed in the broader university community is of less relevance to this study and so the evidence of the corroborative interviews as to the existence of these institutions is sufficient for the purposes of this study.

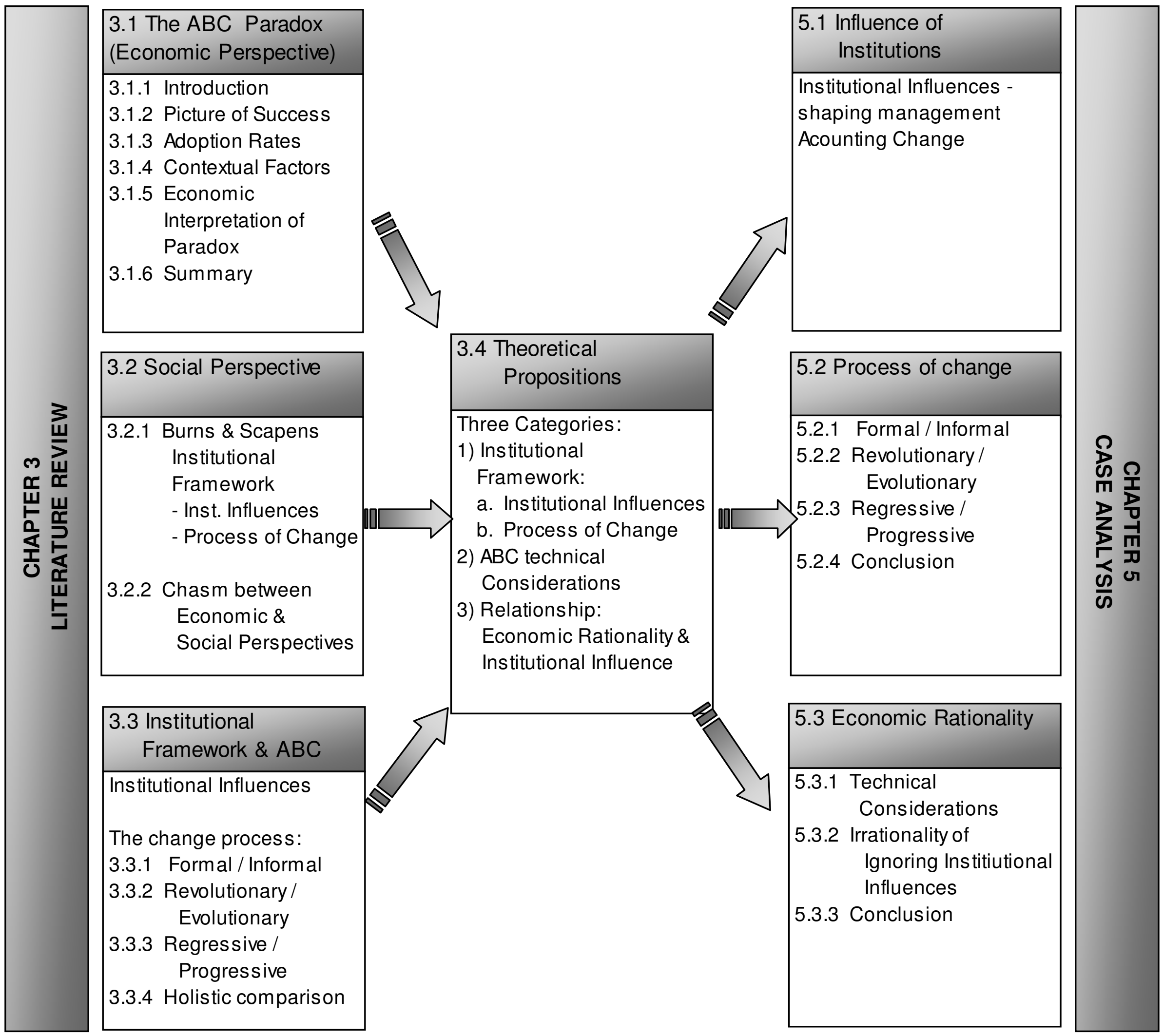
This study does not consider external influences (as suggested by NIS) or later extensions to the Burns and Scapens Framework (the role of power relationships and agency) on the process of management accounting change in the university. The latter omission is a significant one, and one that Scapens (2006) identifies as a shortcoming of the existing institutional study research and theoretical framework, and an important aspect for future research. There was some evidence emanating from several of the interviews that power relationships did influence the adoption of the changes and what would be accepted. The parties with greater power advance the way of thinking that they support, with the result that a greater extent of change can be effected than otherwise would have been possible. There was some evidence from the corroborative interviews that power relationships can be used to change ways of thinking and achieve the informal change that may necessarily precede the intended formal change.

CHAPTER 3
LITERATURE REVIEW AND CASE STUDY PROPOSITIONS

The literature review is presented in three parts and covers two separate bodies of literature. The first part (3.1) details the ABC paradox and discusses the implications and conclusions that can be drawn from the existing body of literature in the context of an economics based approach. The second part (3.2) discusses the institutional perspective proposed by Burns and Scapens (2000) and the third (3.3) considers the relationship between the two bodies of knowledge. The literature review concludes (3.4) with the theoretical propositions that are drawn from the literature review against which the actual results of the case will be analysed.

Diagram 1 is included here again, in order to illustrate the structural link between these two bodies of literature and their use in the analysis of the case through the theoretical propositions drawn from the literature and summarised in Section 3.4.

Diagram 1 (repeated): Theoretical Propositions: Relating Literature Review and Case Analysis



3.1 The ABC Paradox

3.1.1 Introduction

The literature includes numerous studies[9] that investigate several common questions which include:

[9] The key findings of the studies, discussed in this chapter, are tabulated in Appendices 1 – 4.

- the uses of and user satisfaction with ABC, either in isolation or in relation to other management accounting techniques, both innovative and traditional (Appendices 1 & 2);
- the prevalence of ABC (Appendix 3); and
- factors that may be predictive or influential in the adoption and use of an ABC system (Appendix 4).

From these studies a paradox emerges: Users of ABC claim high levels of satisfaction and significant benefit with only a few exceptions (Appendices 1 & 2), yet adoption rates are low (Appendix 3). ABC has consequently been the subject of continued extensive debate following its popularisation by Kaplan in the 1980's. The principle of allocating overhead costs on the basis of cost causation is considered sound by both proponents (Cokins, 1998; Gunasekaran, 1999; Manunen, 2000; Ness, Schroeck, Latendre & Douglas 2001; Stevenson & Cabell, 2002; Briner, Alford & Noble, 2003) and sceptics (Johnson, 1992; Major & Hopper, 2003; Latshaw & Cortese-Danile, 2002) with few exceptions (Lukka & Granlund, 2002) and the technique is firmly entrenched in the management accounting textbooks. Few studies investigate the numerical accuracy of ABC (Major & Hopper, 2003). The central question is the ability of the technique to deliver the promised benefits. Questions abound regarding whether the benefits are overrated, only achievable under specific (elusive) circumstances, exclusive to ABC or even possible to achieve as a result of practical limitations (Armstrong, 2002).

This question remains far from being answered despite the volume of research on the subject[10]. The ABC literature lacks internal coherence, consisting of a collection of diverse frameworks and studies, divergent views and findings that vary in consistency from low level concurrence to contradiction. Exacerbating the lack of internal coherence is that the development of the literature has largely occurred within three separate genres (Lukka & Granlund, 2002):

1. Consulting research (e.g. Fabian, 1998; Anderson, 1995; Gunasekaran, Marri and Yusuf, 1999) is numerically the largest genre and Lukka and Granlund (2002)

[10] Lukka and Granlund (2002) point to a study by Bjornenak and Mitchell which identified 355 ABC related articles published in prominent Anglo-American accounting journals, between 1987 – 1998.

conclude that approximately 85% of a total of 355 articles appearing in Anglo-American journals between 1987 and 1998 are of this type. This genre is characterised by a technical interest in ABC and a prescriptive research style. This body of research comprises mostly case studies which focus on describing the (usually successful) implementation and use of ABC within a specific organisation and are generally moderately to extremely positive regarding the effectiveness and benefits of ABC. Detail regarding the actual benefit derived is limited. A few question the practical reality of the technique. These consist primarily of hypothetical argument and usually present no empirical evidence (e.g. Fabian, 1998; Vann, 1997). A summary is presented in Appendix 1.

2. A wide variety of empirical studies (usually survey based) that culminate in the presentation of user satisfaction with ABC (e.g. Megower & Klammer, 1997; Chenhall & Langfield Smith, 1998; Askarany & Smith, 2000; Innes, Mitchell, & Sinclair, 2000) (Appendix 2), adoption rates (Appendix 3), as well as the relationship of contextual and organisational factors with the adoption and use of ABC (e.g. Shields, 1995; Innes & Mitchell, 1995; Gosselin,1997; Foster & Swenson, 1997; Chenhall et al, 1998; Krumweide, 1998; Anderson & Young, 1999) (Apprendix 4)..

3. Critical research is the most recent of the three genres and suggests that sociological and managerial rather than technical reasons explain the likelihood of successful adoption of ABC (e.g. Burns & Scapens, 2000; Scapens 2006; Parkhe, 2003; Hoque, 2002, Broadbent et al, 2001). This research is often based on theoretical argument including little by way of empirical evidence (Lukka & Granlund, 2002), with a few recent exceptions (Soin et al, 2002; Chenhall & Euske, 2007, Brown & Brignall, 2007).

This literature is discussed in three Sections which consider ABC success (3.1.2), adoption rates (3.1.3) and factors associated with these (3.1.4), in turn. The economics based response to the paradox that emerges from these studies is reflected on (3.1.5) and the overall situation summarised (3.1.6) in anticipation of analysing the paradox through the Institutional Framework (3.3).

3.1.2 The picture of ABC success that emerges from the literature

Appendices 1 and 2 present the picture of benefit derived from ABC as indicated by a variety of case studies (Appendix 1) and surveys (Appendix 2) drawn from academic and practitioner literature.

These appendices are not meant to provide an empirical summary of the situation. This is impossible as the studies have different ways of assessing the benefit derived from or user satisfaction with the ABC system. These include management perceptions, the extent that ABC is used and various monetary values. As observed by Foster and Young (1997) there is no consistent standard for evaluating the benefit derived from an ABC system in the literature. No common terminology is used to describe the extent of benefit derived and so some liberty has necessarily been taken to catagorise the message conveyed by the study as “significant benefit with the ABC system”, “some benefit, extent unclear”, “no benefit”, “no claim of improved economic benefit, but management values the improved cost information”. This last situation usually occurs where management has either not yet attempted to use the information for improved decision making or believes in the improved accuracy of the cost information but benefit is dependent on their ability to act on this information. The case studies are particularly problematic in this regard. In many instances studies do not indicate the benefit derived from the technique, choosing instead to indicate user satisfaction with the technique. This is because “benefit” is viewed as very difficult to measure while “satisfaction” is much easier to record. For the purposes of this summary “user satisfaction” is regarded as a good indication of at least the perceived benefit derived from the ABC system.

The two tables (Appendices 1 & 2) provide a picture of the *impression* presented by the literature regarding the success of ABC. The tables indicate the purpose for which

ABC was used by the organisations and the level of satisfaction or benefit experienced by the organisation. This picture is important as it represents the one hand of the paradox: *If ABC is so successful*, why is it not used more widely in practice?

Case Studies investigating ABC success

The case studies largely claim that it is possible to implement and operate a moderately to highly effective ABC system. These studies are often characterised by a flimsy argument. Appendix 1 notes whether the study is consulting type research or scholarly research. Case studies by consultants or state owned organisations offer favourable accounts of the success of the ABC system. Those by academics also contain strong evidence of benefit or perceived benefit but tend to present more conservative interpretations of the implementation. It is noteworthy that in spite of their more reserved nature these studies report that organisations perceive significant benefit.

Of interest is how these studies make a strong link between (1) the provision of more accurate cost information and the presumption that this will almost inevitably provide benefit to management as a result of better decisions (Kullven & Mattson, 1993; Hart & Smith, 1998; Searcy, 2004; Needy, Nachtmann, Roztocki, Warner & Bidanda , 2003); and (2) the difference in perspective as displayed by Anderson (1995) in her study of General Motors (GM) ABC implementation across eight years. While the management of GM shared the positive perspective, Anderson is more cautious and indicates that it remains to be seen whether GM is able to make the transition from implementation to beneficial use. Anderson (1995) notes that the system was not designed to provide information for the kind of decisions operating managers had to make. She echoes Kaplan (1984) that the benefits of ABC will be derived only if the organisation is able to use the information provided for operational decision making and control.

Major and Hopper (2003) present an interesting view whereby an organisation was highly satisfied with ABC as it enabled the organisation to satisfy industry regulators. This is despite the cost information generated being unreliable and inaccurate. Most studies do not explicitly consider the issue of whether the ABC cost information is accurate or not. If considered, it is seldom investigated, and management’s perception that the cost information is more accurate is taken as sound evidence.

Overall, both the academic and consulting case study literature distinctly report that organisations generally perceive ABC to be of value by reason of either improved cost information that assists and directs management investigation or outright financial benefit through improved cost management and savings. The academic literature reports this message with less extravagant and more conditional claims. The broad message from the cases is that ABC does offer potential benefits and can be used successfully. There is evidence amongst the academic case studies that ABC may not offer benefits in all circumstances and that successful implementations may be affected by factors such as an organisation’s change management processes and other contextual factors (Anderson, 1995).

Only the General Motors study (Anderson, 1995) casts doubt on the organisation’s ability to derive real benefit from the ABC system. The Portuguese Telecoms study (Major & Hopper, 2003) does indicate that the organisation regarded their primary objective for implementing the system of satisfying regulatory pressures as being met and so from this perspective ABC was a success and of benefit to the organisation. However, the system is regarded as a failure from a technical and economic perspective (Major & Hopper, 2003). This case is discussed later.

The findings that the benefits of ABC are more highly rated by consultants and practitioners than by academics is consistent with Lukka & Granlund (2002) in their review of the ABC literature. They also note that the bulk of the literature on ABC was of the consulting type. A common criticism is that this style of research should not be regarded as such and should be ignored by serious researchers as it lacks rigour. However, given the prevalence of this research it cannot be ignored for the purposes of this study as it has certainly contributed to the perceptions that exist regarding ABC. It has already been suggested that ignoring branches of research has contributed towards the confusion that exists. Further, Lukka & Granlund (2002) point out that in accounting and business studies discrimination on the basis of a piece of writing being openly prescriptive and of a consulting style does not, and historically did not, automatically disqualify it from being research.

Surveys investigating ABC success

The results of the statistical surveys regarding use of and satisfaction with ABC are presented in Appendix 2. These mostly indicate a moderate level of satisfaction, which is generally lower than that indicated by the case studies. Some evidence of dissatisfaction and disregard for the technique is also apparent. The results are reflected on a scale of 1 – 5. Means range from a few low 3s, indicating ambivalence, with most results at around 4, which indicates moderate benefit. The results from the surveys cannot be interpreted as disproving the case studies but strongly suggest that the success reported in the case studies can not be considered to be representative of the general population of ABC users. While the majority of the 404 US, UK and Canadian municipalities surveyed by Kidwell, Ho, Blake, Wraith, & Richardson (2002) describe ABC as moderately effective, only 20% and 25% of US and Canadian municipalities respectively describe ABC as a significantly effective tool.

Three of the studies presented in Appendix 2 compare user satisfaction with ABC against other management accounting techniques, which controls for respondents' general disposition towards management accounting techniques.

1. Swenson (1995) provides a comparison of user satisfaction between ABC and traditional methods used prior to implementing an ABC system. Users were highly dissatisfied with the previous cost allocation system and much more satisfied with the ABC system. A further interesting point is that one organisation surveyed makes a direct link between the introduction of ABC (application to pricing of bids) and a dramatic increase in the organisation's

overall profitability. This direct link between ABC and improvement in the organisation's overall financial performance is not commonly made in the academic literature.

2. Chenhall and Langfield-Smith (1998) present a comparative ranking of user satisfaction of Australian companies with ABC to 42 other traditional and innovative techniques. ABC and related practices ranked near the bottom of the list.
3. Kidwell, et al's (2002) comparison of ABC to five other innovative management accounting techniques showed satisfaction ratings for ABC were consistent with those of the other techniques in the US, and slightly more favourable than the other techniques in Canada and the UK where ABC was ranked 1st and 2nd respectively. These findings are inconsistent with those of Chenhall and Langfield-Smith (1998).

Swenson (1995) and Chenhall and Langfield-Smith (1998) present two strongly contrasting pictures of users' views of ABC relative to other management accounting techniques. This may be due to the difference in samples of the respondents. Swenson's comparison is for users that were using traditional costing methods and moved to ABC, which implies that there must have been dissatisfaction with the traditional methods to begin with. In contrast, Chenhall and Langfield-Smith's sample includes a much wider range of users, many of whom are not using ABC. Furthermore, these respondents show much higher adoption rates of ABC than other manufacturing organisations (Appendix 3). The low ranking relative to other techniques in the Australian situation may be the result of too high an uptake (i.e. adoption in unsuitable circumstances) as a result of government incentive and competitive pressure.

In addition to the effect of different samples on survey results, Megower and Klammer (1997) found that the selection of survey respondents in the organisation affected the satisfaction ratings. In general, satisfaction ratings were highest where survey respondents were the ABC champion, followed in turn by top management, employees and preparers of the information. Swenson (1995) similarly reports that satisfaction scores differ across different user groups, with non-financial managers indicating the least amount of satisfaction with ABC. They also indicate the lowest level of satisfaction with traditional costing systems. Their responses might not be indicative of ABC specific concerns but a lower regard for the value of costing systems in general.

The above points highlight the effect a small change in methodology can have on results of otherwise seemingly similar research processes. This underscores the need to allow some leeway in interpreting the overall inconsistency and disagreement in the literature.

3.1.3 Surveys of adoption rates

Appendix 2 shows a great discrepancy in the adoption rates that have been recorded by industry type. The lowest adoption rates are reflected for manufacturing companies with the exception of the Australian survey (Chenhall & Langfield-Smith, 1998). Although this high adoption rate suggests that ABC is very popular, the use of ABC was ranked 24th out of 27 techniques surveyed (Chenhall & Langfield-Smith, 1998). The reason for the high adoption rate may be linked to government funding initiatives which encourage the adoption of innovative practices in support of developing a competitive economy.

Financial services and health care sectors are amongst those that have the highest uptake rates. Both these industries are under regulatory pressure to justify high service charges. Major and Hopper (2003) found that ABC was adopted in response to regulatory pressures for transparency in justifying service charges at a Portuguese Telecoms company. Several of the case studies relating to public service organisations noted considerable pressure from government to be more efficient (Fabian, 1998; Vann, 1997; la Grange, 1999; Kidwell, et al. 2002). It may well be that higher adoption rates are indicative of a response to external pressure which is not experienced in other sectors.

Pohen and La Londe (1994) reported a high (54%) adoption rate. But this also needs to be viewed with caution. They report that the majority of firms surveyed had implemented some form of ABC and that 19% had not considered ABC, 14% had ABC under consideration and 14% had decided against ABC. However, in their detailed analysis of responses, only 4% of ABC systems were complete and in use. The other 50% varied from being in the internal planning to implementation stages.

3.1.4 The message emanating from the research into factors potentially affecting the adoption and successful use of ABC

A sizable portion of ABC literature is dedicated to identifying whether successful implementation and operation is associated with certain factors (the factor studies). One approach is to elicit management opinion by surveys or case studies. A second approach is to investigate the adoption/non-adoption of ABC identifying the existence of various factors that appear to have influence on the adoption and satisfactory use thereof. These factors are commonly divided into the following categories (although categorisation is by no means consistent): Contextual, Organisational, External, Technical, Strategic and General Change Management Principles.

The factor studies are conducted from three perspectives, although in many studies these are combined as the search net is widened in the hopes of either confirming results of previous studies or identifying new factors. The perspectives are:

1. If ABC was adopted in some instances but not others, there must be certain circumstances that exist where ABC is the optimum solution for an organisation, and in the absence of these factors ABC is not the optimal solution. If this is the case then these factors can be investigated. These studies test factors that indicate the possibility for significant cost distortion or reduction, as a result of the significance of overheads and complexity in resource consumption. This comparison provides input into the discussion as to

whether the benefits of ABC can be achieved through more efficient or cost effective means.

2. Other studies investigate practical reasons for non-adoption, following the argument that benefit from ABC is not possible, or limited, as a result of impracticalities and costs associated with the technique.

3. The third introduces change management theory into the factor studies, particularly that relating to information systems. These studies regard ABC as being not only a cost allocation technique but also an information system due to the high information needs and detailed design and development process. This perspective is based on the assumption that the rigour of the ABC system design, and management of the implementation thereof, contributes significantly towards the successful use of an ABC system. Such studies usually investigate key variables in the system design and implementation process as well as other contextual, organisational and technical factors. These studies usually suggest that appropriate planning and management can result in difficult practicalities being surmounted. While these studies may establish a predictive link between certain change management factors and a higher probability of successful ABC adoption and implementation, the relationship between the specific factors investigated and the implementation of ABC is not explained. This is unhelpful as the underlying problems are not understood which hinders the application of the studies' findings to the design and implementation process.

The results of the wide variety of factors investigated by this body of research are tabulated in Appendix 4. While this tabulation shows that many positive relationships were found the authors of these studies stress the wide variety of responses and broad distribution of results (Shields, 1995; Foster & Swenson, 1997; Krumweide, 1998). Even though there is a statistically significant relationship at a high level, the studies conclude that these factors may have some influence but are far from being a key determinant of ABC success.

The key message emanating from the factor studies is the broad diversity in responses. Little attempt has been made to explain the nature of the relationships between these factors and an organisation's predisposition towards successful adoption of an ABC system. Krumweide (1998), in explaining the variety of factors investigated and inconsistent results, suggests that different factors affect the successful use of an ABC system at various stages of ABC implementation. This could explain the multitude of factors suggested and conflicting results reported by prior studies. Krumweide (1998) tests the influence of a limited number of factors at various implementation stages, and finds some support for his argument.

The traditional case for ABC

The conclusion that contextual factors are not a key determinant of ABC use or success is in contrast to the history of ABC, which records the development of the technique as being in response to organisations' need for more accurate cost information as a result of certain key factors:

- Increased complexity in resource consumption;
- Significance of overheads in total and in proportion to total costs; and
- Competition putting pressure on margins which increases the possibility of apparently profitable products in fact being loss making.

These are frequently expressed as key indications for an ABC system in management accounting text books.

The factor studies find that the large size of an organisation is consistently associated with ABC adoption. This stands to reason. The larger the size of the organisation, the larger the overhead burden (in absolute terms) thus the greater potential for cost saving. Chenhall and Langfield-Smith (1998) note that considerable evidence exists that size is an important factor influencing the adoption of more complex administration systems.

It is interesting to note that while Drury, Braund, Osborne and Tayles (1993) find a positive relationship between large firms and ABC adoption in their survey of 300 UK manufacturing firms, they find no relationship between adoption and the ratio of overheads to total cost, competition or product diversity. This is an indication that a wide set of circumstances influence the ABC decision.

Complexity of operations and diversity in products are not tested for by survey studies with the exception of the Drury study. However, complexity of operations and diversity in product range is found to exist in the case studies where ABC is implemented[11] (Major & Hopper, 2003; Anderson, 1995; Gunasekaran, et al. 1999).

The studies indicate that competition does play a role, though it is uncertain what this is. Possibilities include:

1) Urgency increases the external pressure to do something or to be seen to be doing something by stakeholders. Major and Hopper (2003) indicate the urgency may result in the implementation of a ready-made solution rather than carefully contemplating all options.
2) Competition may increase the perceived benefit of ABC information. Cross subsidisation and cost inefficiencies are less tolerable when an organisation is performing poorly (Brewer, Juras, & Brownlee, 2003).
3) Johnson (1992) suggests that ABC does not assist an organisation to respond to competition as it focuses on costs and not customer satisfaction.

[11] These are characteristics of the case study investigated later in this study, where ABC was not adopted. This rationale for the adoption of an alternate treatment regarding overhead costs is consequently of interest, as the ABC literature referred to here implies that based on economic rationality, ABC was the logical solution.

3.1.5 Mainstream economic-based approach to interpreting the paradox

The majority of the literature on ABC falls within the economic-based mainstream tradition of management accounting research. This tradition seeks to analyse and explain the status quo within the context of a neo-classic economic framework which is based on the assumption of a profit-maximising objective (Ryan, et al. 2002). Consequently, much of the ABC literature describes and analyses the adoption and use of the technique with respect to contextual and technical factors. However, the literature is unable to offer an explanation for the diversity in findings from a rational economic perspective other than to question whether the benefits of ABC relative to traditional systems are in fact overstated or only achievable under an undefined set of circumstances. Questions that are prominent in the literature are:

- Does ABC actually work or are the cost allocations flawed due to insurmountable practicalities? Do (im)practicalities render ABC as arbitrary as traditional overhead allocation methods? (Major & Hopper, 2003; Armstrong, 2002; Johnson, 1992; Gosselin, 1997).
- Can the benefits of ABC be achieved only under certain specific circumstances (Latshaw, et al. 2002; Gunasekaran, et al. 1999)? If so, what are these circumstances? Are they related directly to the technique itself, such as the significance of the overhead and diversity in cost drivers, or other indirect factors? However, none of these are considered to be key determinants for the adoption of ABC.
- Are the claimed benefits of ABC exclusive or can they be achieved through other more cost effective means (Johnson, 1992)? Are traditional techniques sufficient (or as effective) in meeting management's needs (Waweru, Hoque & Uliana, 2005; Askarany & Smith, 2000; Chenhall & Langfield-Smith, 1998; Gunasekaran, et al. 1999)? Are the shortcomings of traditional cost allocation techniques exaggerated (Chenhall & Langfield-Smith, 1998)?
- Are the benefits of ABC overstated in the literature?

These questions are the result of approaching the paradoxical situation reported in the literature from an economics-based perspective. This approach is rooted in the assumption that managers make rational, economic, profit maximising decisions. Consequently the decision to use a technique reflects the potential for the technique to provide economic benefit to the organisation.

Interpreting the results of adoption and use studies through this neo-classical economics theoretical framework results in the inevitable conclusion that if the technique is not in widespread use, then ABC does not offer any significant potential for economic benefit in excess of that offered by traditional costing systems generally, or the benefits of ABC are possibly achievable for a small percentage of organisations under certain specific circumstances, for some indeterminate reason.

The main points of speculation in the interpretation of the ABC paradox from a neo-classical economic perspective can be reflected in three theoretical propositions against which to analyse the facts of the case investigated in this study. The theoretical propositions relating to the non-consideration of ABC from a technical perspective are as follows:

TE1 ABC was not considered to be more economically efficient than the solution effected;

TE2 None of the contextual factors identified in the ABC literature were important considerations in designing the changes that were made; and

TE3 An ABC solution would have been regarded as a practical impossibility and accurate allocations could not be achieved.

3.1.6 Summary of results emanating from the economics-based literature

The key message emanating from the literature, for each category of studies, is diversity:

- Case studies claim success, but with differing definitions and in varying degrees.
- Satisfaction surveys report moderate benefit on average, but wide distributions exist and degrees of satisfaction vary, as do measures of satisfaction. While the

case studies create the impression that ABC is the solution to cost allocation dilemmas, the statistical studies give the impression that sometimes ABC works, and sometimes it does not. Whether the reason for this is technical, circumstance driven, or management driven is unclear.

- Adoption surveys show differing levels of adoption. Adoption can be measured differently depending on the stage of development of the ABC system and these results may also not be comparable. Outside of these surveys the ABC literature is more consistent in reaching consensus that adoption of ABC is relatively low (Gosselin, 1997).
- Factor studies find many positive relationships, but stress the diversity in responses and while there is some high level coherence between studies, organisations' responses are too diverse for the results to have strong predictive value, or to be interpreted as explaining the ABC paradox. The factor studies find the factors investigated are not key determinants of ABC adoption.

The summative message of the economics-based literature is that a neo-classical economic approach is not able to fully explain the diversity in management accounting practice that is evident from the literature. To address this Modell, Scapens and others contribute a socially orientated perspective to explain the diversity in management accounting practice.

3.2 Socially orientated perspective on management accounting practice

Socially orientated research contends that successful use of a technique is not only a reflection of the strength of the technique itself, but is also reflective of a social response to management accounting change. This social response can be with respect to internal or external influences and two separate socially orientated theories, OIE (Burns & Scapens, 2000; Scapens, 2006) and NIS (Modell, 2002 & 2006), have developed. NIS considers the broad external environment and pressures that may explain conformity amongst organisations, whereas OIE considers the institutions that exist within organisations which shape the actions and thoughts of individual human agents. The consequence of the latter is diversity in management accounting practice, which is the focus of this study.

As this study investigates a Finance Department's decision to institute certain changes to their management accounting practices, the Institutional Framework presented by Burns and Scapens (2000) is relevant. The framework provides a basis for studying the process of change in management accounting practices within an individual organisation and offers explanation on how the various influences on management accounting practice inter-relate within an individual organisation.

A brief summary of this framework follows.

3.2.1 Burns and Scapens' Institutional Framework based on Old Institutional Economic Theory (OIE)

The essence of the Institutional Framework is that management accounting practices shape, and are shaped by, the institutions that exist within the organisation (Burns & Scapens, 2000).

An institution is defined as "a way of thought or action of some prevalence and permanence which is embedded in the habits of a group or the customs of a group of people" (Burns & Scapens, 2000: 5-6) and "the shared taken for granted assumptions which inform and shape the actions of individual actors" (8). They also argue that these taken for granted assumptions are themselves the outcome of social actions, that is, that institutions are themselves socially constructed.

Management accounting practices can become institutionalised when, over time, they become the taken-for-granted ways of thinking and doing in an organisation. This argument is based on the view that in many organisations, management accounting systems and practices constitute stable rules and routines. Routine develops settled habits of thought and action which result in management accounting practices becoming the taken-for-granted way of behaving and institutionalised within an organisation.

The more widely and deeply the institution is accepted, the more likely it is to resist change (Burns & Scapens, 2000). The selection and implementation process of any specific intentional change in management accounting practices will be shaped and influenced by the existing institutionalised practices. As a result, management accounting change that challenges existing rules and routines will be less readily accepted than change that is consistent with existing practices.

Consequently, the process of management accounting change is more complex than the rational selection of optimal procedures and techniques (as suggested by economics-based theories). The underlying premise of this institutional theory is a rejection of economic rational choice. Management accounting change is dependant on the existing routines and institutions within that organisation and these may preclude the rational evaluation of options available to an organisation.

The framework presents three dichotomies as a useful starting point in identifying factors that facilitate the adoption, or encourage the rejection, of new management accounting techniques (Burns & Scapens, 2000). These are described below and compared to the findings of the ABC literature in Section 3.3.1 – 3.3.4.

1) Formal and informal management accounting change
   Formal change occurs by conscious design, usually through the introduction of new rules or the actions of powerful individuals or groups. Informal change occurs at a more tacit level as the individuals involved in the management accounting and operating processes develop new ways of thinking and working in response to challenges to which they are exposed. Where a formal change requires new ways of thinking, the implementation thereof may be problematic where informal change does not occur. The lack of informal change may result in the rejection and failure of the formal change where individuals have sufficient power to resist the change process (Burns & Scapens, 2000).

2) Revolutionary or evolutionary management accounting change
   Revolutionary change involves a fundamental disruption to existing routines and institutions while evolutionary change is incremental. Evolutionary changes in management accounting practice are more likely to be readily accepted as these would fit into the existing way of thinking and doing in the organisation (Burns & Scapens, 2000; Scapens, 2006).

3) Regressive and progressive management accounting change
   Whether management accounting change is regressive or progressive is determined by whether the behaviour of individuals, groups of individuals or the organisation as a whole is ceremonial or instrumental in nature. Ceremonial behaviour is the result of a value system that seeks to preserve existing power structures. This in turn leads to regressive change, i.e. change that reinforces the existing power structures and restricts institutional change. Instrumental behaviour, in contrast, seeks to apply best available knowledge and technology to problems and enhance relationships. This can lead to the displacement of ceremonial behaviour as new technology can prompt questioning of previously dominant, ceremonial values and lead to institutional change (Burns & Scapens, 2000; Scapens, 2006).

A few case studies have been carried out which apply the framework to practice with the objective of identifying extensions to the framework beyond OIE (Scapens, 2006). These extensions are not important for the purposes of this study which is concerned with the ability of the core of the framework to explain management accounting change, as it is on this core that the framework is built. Despite the objective of this framework being to study change it has been used largely to study stability and resistance to change. Only two cases have applied this framework to studying changes in management accounting practices (Soin, et al. 2002; Scapens, 2006). The first study investigated the process by which the change in management accounting practice became accepted and institutionalised, as well as the limited influence of the change on reshaping existing institutions. It did not investigate how or whether existing institutions shaped the change in management accounting practice itself. The second study was in the context of a take-over where the acquiree's practices were replaced with those of the acquirer (Scapens (2006)). While that case produced interesting insights, a take over is an once off event and does not represent the regular decision making processes of an organisation over time, thus the case might not be representative of the process of management accounting change for the majority of organisations.

The elements of institutional theory outlined above provide a framework for understanding some of the forces that may influence the adoption of a new management accounting technique, such as ABC, and four theoretical propositions are extracted from the above mentioned for comparison to the results of the case study.

Propositions relating to the influence of the institutions on management accounting change:

- IN1 Ways of thought or action of some prevalence and permanence were embedded in the habits or customs of a group, or groups, of people existed within the university;
- IN2 These affected the shape of the management accounting changes that were made;
- IN3 Prevailing institutions prevented potential changes that were not in line with the existing institutions from being made; and
- IN4 Institutions that were newer, and less removed from their origins were more easily overcome (where necessary), while more widely spread and deeply embedded institutions were not overcome.

More detailed propositions relating to the role of the dichotomies follow from the comparison of the ABC literature to the dichotomies and are identified in Section 3.3.4,

The relationship between rational choice and institutional influences receives only limited consideration in the literature. The underlying premise of this institutional theory is the rejection of economic rational choice, assuming that prevailing institutions will dictate the options an organisation will consider. The problems associated with assuming a research perspective which ignores the contribution of other approaches has already been highlighted in this research (Section 1.1.1). As already suggested, a key shortcoming of economic rational choice in explaining diversity in management accounting practice is that it ignores the existence of social influences. Section 3.2.2 considers the relationship between economic rationality and OIE Institutional theory, drawing from the experience of NIS-based Institutional theory and other non-economic based management accounting research approaches.

3.2.2 The chasm between rational choice approaches and alternative management account research approaches

Institutional theories followed the general argument put forward for the non-rational approach to management accounting practice. This school of thought suggests that institutional goals are unclear and unstable and that the process of analysis and choice may be politically motivated, or more fortuitous than considered, and influenced by values embedded in the organisation (Baxter & Chua, 2003). Thus it cannot be assumed that the systems in operation are optimal for the organisations under study or that the design of the system will result in superior benefit to the organisation, than an alternative design. In contrast, classical economic theory assumes that goals are clear, information complete, and that management has the cognitive capacity to adequately analyse the situation. These assumptions have been heavily criticised:

- goals are often unclear, and contradictory goals frequently exist;
- decision makers seldom have access to all relevant information;
- uncertainty makes maximising impossible; and
- no person or organisation has the cognitive capacity required by this framework.

Alternative management accounting research was initially seen as augmenting understanding of management accounting change by attesting to the improbability of purposeful and predictable change. Baxter & Chua (2003) conclude that the literature shows little empirical evidence that the development of management accounting technologies is characterised by a self-enlightened, well-engineered and progressive path and "alternative management accounting research illustrates that there is little or no sense of any technical elegance or excellence propelling management accounting change" (p106). Viewed as such, the body of literature stands in conflict with the concept of rational choice.

The Burns and Scapens Institutional Framework is similarly divorced from neo-classical economic theory (Burns and Scapens, 2000; Soin, et al. 2002), as OIE starts from a rejection of the neo-classical economic core (Scapens, 2006).

Consequently, institutional theory is often applied in conjunction with the assumption that the institutional practices that exist are a-rational, or even irrational. The view that institutional practices are inevitably devoid of reason has been criticised in the literature. Lounsbury (2008) provides a neat summary:

> *More recent neoinstitutional scholarship, however, has begun to shift away from older imageries that featured institutional dopiness by revisiting ideas about rational action. The kind of rationality that institutionalists are embracing is not the narrow, utility maximising, sort that economists and rational choice theorists in sociology and political science employ deus ex machina, but a broader, Weberian understanding of rationality as institutionally contingent … This kind of institutional approach to rationality has more recently become manifest in the use of the concept of logic that refers to broader cultural beliefs and rules that structure cognition and decision making in the field… this has enabled contemporary scholars to challenge established wisdom such as the …conceptualisation of institutional and technical forces as separate and distinct by showing how technical considerations are institutionally embedded.*

Lounsbury (2008) argues that maintaining the distinction between rational decision making on the one hand and institutional forces on the other hand is fundamentally flawed. Institutional behaviour may be rational. (Lounsbury discusses this in the context of NIS). Research in the neo-classical tradition does not recognise unseen social structures as real. However, if the social structures are real, then taking that structure into consideration is as logical as considering any tangible organisational factors.

This has been the experience of Institutional Theory drawn from NIS. A lack of attention was initially paid to the relationship between the institutional and technical environments. Criticism of this oversight led to attempts to bridge the divide and an acceptance that striving for legitimacy and achieving economic efficiency are not necessarily in conflict as previously posited in the theory (Modell, 2002).

Scapens (2006) recognises that while the choices of an organisation may appear illogical when viewed from the outside, they may not be as they are shaped by a multitude of influences which are not visible from outside the organisation. He goes on to explain how the Institutional Framework based on OIE can be used to explain these influences, but does not return to the question of rationality of the management accounting practices that result.

The relationship between the Burns & Scapens Framework and rational choice currently implicit in the framework is that institutions may block solutions that are consistent with economic rationality. The first and second dichotomies both indicate that change will be discouraged where it is not consistent with the prevailing institutions. The third dichotomy does consider the role of instrumental behaviour which applies the best available knowledge and technology to problems, in doing so inciting progressive change. However, this dichotomy also recognises that progressive development in management accounting practice may be restricted by ceremonial behaviour seeking to preserve the powers of particular vested interests (Burns & Scapens, 2000).

This relationship is investigated in one case study where ABC was implemented in a bank in order to increase cost consciousness (Soin, et al. 2002). Soin, et al. observe that despite having ABC cost information available to them, the decisions of the bank's management did not change and that in this way prevailing institutions prevented the bank's management from acting in an economically rational manner. This result supports the theoretical relationship described above.

Based on the example provided, this conclusion seems incorrect. In the example provided, the ABC information provided the cost of a particular product, which represented the minimum selling price. However, the bank's management chose not to provide this information to the sales team and let them sell below the ABC cost, on the grounds that the bank costs were largely fixed and it had spare capacity. The result of losing volume would be to increase their own unit costs, and decrease that of their competitors, further reducing their ability to price themselves competitively.

Based on this information (fluctuation in unit costs as a result of changing activity levels) it appears that the ABC system was calculating the activity rates based on actual activity levels with the result that the product was being over costed. This practice is contrary to the ABC rationale of determining activity rates for fixed costs on the basis of practical capacity (it is the level of capacity that causes fixed costs to be incurred, not the actual activity level) (Drury, 2004). This avoids building the cost of spare capacity into the product and reflects the economic cost of the resource. The bank's managers understood, albeit at an institutional this-is-the-way-we-do-things level, that the banks' profitability depended on volumes, as costs were mostly fixed, and that the change in unit cost was a false indication of profitability.

It is fortuitous for the bank that the existing institutions prevailed over the flawed technical conclusion. This provides an indication that institutions may in fact have embedded technical logic, which is consistent with the finding in the NIS literature.

Conclusion

The consequence for interpreting management accounting practice through an institutional framework is to not simply assume that institutional practices are necessarily irrational and instead dig deeper before dismissing a certain practice as unrelated to the technical merit of a technique. This is particularly important when attempting to apply an institutional framework to further understanding of the ABC paradox. The institutional theories might not work in contrast to, but rather in conjunction with, technical considerations. Institutions may have embedded economic logic. This is a question that will be explicitly considered in the case study by comparing the facts of the case to several potential relationships suggested by the literature. The rival propositions relating to the relationship between institutional influences and economic rationality are as follows:

- RH1 Prevailing institutions blocked economically efficient alternatives from consideration; or
- RH2 Prevailing institutions had embedded technical logic and were consistent with the economically efficient alternative(s); or
- RH3 Prevailing institutions were overcome by economic efficiency.

3.3 Application of OIE Institutional Framework to the findings in the ABC literature

In this section the Institutional Framework is applied to the existing ABC literature in order to consider the relationship between these two bodies of research and explore the potential of the framework to provide new insight into the paradox. Much of the literature shows that ABC is a more rational cost allocation basis than traditional volume based measures and the rationality of the technique is attested to by high levels of satisfaction of ABC users. However, such rational analysis based on core economic principles cannot explain the process through which ABC techniques come to be used in some organisations but not others (Burns & Scapens, 2000; Modell, 2002). Likewise, it cannot be inferred that the lack of adoption of the technique indicates a deficiency regarding the soundness of the technique itself. The adoption and successful use of ABC is dependent not only on the rationality and theoretical soundness of the technique but also on the compatibility with existing institutionalised and routinised practices. Thus any investigation of the adoption of ABC must not only consider the rational case for ABC but also the institutions that exist in the organisation under study.

As reported in Section 3.1.4, numerous studies (Appendix 4) identify the existence of a relationship between various factors and ABC adoption but cannot offer an explanation as to how and why it is that the factors influence the success of the outcome (Krumweide, 1998; Megower & Klammer, 1997; Shields, 1995; Brewer et al, 2003; Innes & Mitchell, 1995; Gosselin, 1997; Chenhall & Langfield-Smith, 1998; Anderson & Young, 1999).

Through the dichotomies of change, Institutional Theory provides a framework for explaining how many of the diverse factors identified by the factor studies as influencing the adoption and use of ABC can be understood. These are considered in Section 3.3.1 – 3.3.3. Section 3.3.4 considers the results of case study conducted by Major and Hopper, which provides greater detail on the social response of the organisation to the introduction of ABC than most cases in the literature and extensively more than offered by the factor studies. Major and Hopper do not interpret the details of the case through an Institutional Framework. Consequently, the facts of their case are considered against the three dichotomies of the Burns and Scapens Framework in Section 3.3.4 in order to further consider the goodness of fit of an institutional explanation, which is suggested by the comparison of the dichotomies to the factor studies is Sections 3.3.1 to 3.3.3,

3.3.1 Formal and informal change

ABC represents the introduction of a new management accounting system, which is a formal, rather than informal change in management accounting practice (Burns &

Scapens, 2000). Where that change is in conflict with the existing institutional context, a powerful individual or group thereof is required to drive the process. Thus it makes sense that studies of success factors for ABC implementations include the support of top management or presence of an ABC champion as a variable. This factor is tested for in seven of the twelve studies reflected in Appendix 4 and a positive relationship between involvement of top management (or champion) and successful implementation of the ABC system is found each time. Numerous ABC case studies note the vital importance of the support and involvement of top management in overcoming resistance by employees (Sohal & Chung, 1998; Anderson, 1995).

Indications of informal change occurring are not easy to observe and measure. Non-accounting ownership or ownership of the system at an individual level may indicate the extent to which informal acceptance of the system has occurred, while training and employee incentives could encourage ownership at the level of the individual (Krumweide, 1998; Foster & Swenson, 1997, Megower & Klammer, 1997). However, these are potential indications, not direct measures, of informal change and may embody other attributes of the change process, such as the extent to which the change may be revolutionary. Thus these factors are considered in the Section that follows.

3.3.2 Revolutionary and evolutionary change

ABC is further considered to be a revolutionary change (Soin, et al. 2002; Major & Hopper, 2003), as it is likely to represent a marked departure from the existing routines and way of doing things of the organisation. ABC is resource and information intensive and existing systems are unlikely to suffice. ABC goes beyond affecting only management accounting systems but has significant implications for operating and support activities. Implementation frequently requires organisational and functional changes and a change in accountability structures from a functional to process orientated view of the organisation (Stevenson & Cabel, 2003). Further, a high degree of involvement of non-accounting personnel is required as much of the information needs of an ABC system is required from frontline workers. This represents a significant change from traditional cost allocation systems which are managed almost exclusively by accounting personnel (Malmi, 1997; Brewer, et al. 2003).

Krumweide (1998) finds a negative relationship between non-accounting ownership and use of an ABC system, particularly at the highest level of ABC adoption, indicating that the higher the level of non-accounting ownership the less likely it is that an organisation will operate a fully integrated ABC system. However, Krumweide (1998) is unable to explain this finding. An explanation may be that the greater the non-accountants involvement with an ABC system, the more the non-accountant is required to operate like an accountant, which represents a revolutionary change for the individual involved. Brewer (2003) finds that the over-involvement of operational individuals in an ABC system at Global Electronics resulted in the alienation of those individuals from the ABC system for this reason. In contrast, positive relationships between adoption of ABC and non-accounting ownership of the system were found by Megower and Klammer (1997) (weak) and by Foster and Swenson (1997) (strong), which may indicate acceptance of the system and informal change occurring within the organisation. The power of interplay between these dichotomies is a little investigated phenomenon that may be more influential in determining the success of management accounting changes than the dichotomies individually.

A further finding is that where TQM is in use, higher adoption rates of ABC are reported: the mindset of continuous improvement and elimination of non-value add was already created. Mapping of activities is likely to have already occurred. As a result, implementation of ABC is likely to be viewed as evolutionary, rather than revolutionary and be more readily accepted. Innes (1995) finds a positive relationship between the existence of TQM within an organisation and ABC adoption. On the other hand, many of the benefits of ABC regarding activity management, such as eliminating non-value added activities, may have already been achieved as a result of the process mapping, and management may view the attachment of costs to activities to be unnecessary for these purposes. In such circumstances management may view ABC as not able to deliver benefit beyond what is currently being achieved. This would suggest a negative relationship between TQM and ABC adoption on the grounds of economic rationality. Krumweide (1998) finds no relationship between the existence of TQM within an organisation and the adoption of ABC. Perhaps this is a result of the existence of both negative and positive influences of TQM on ABC adoption.

Libby and Waterhouse (1996) find that management accounting change is generally evolutionary rather than revolutionary. They suggest that this could be because familiarity with existing systems builds experience, which decreases uncertainty associated with change. This is supported by the findings of Askarany and Smith (2000) who report that management cite lack of information, uncertainty and lack of skills regarding new management accounting techniques, as three of the top ten hindrances to adopting innovative techniques.

3.3.3 Regressive and progressive management accounting change

Modell (2002) stresses that intra-organisational power relationships play an important role in influencing management accounting change, and should not be overlooked. These power relationships are most notable where financial implications (usually budget cuts) exist.

ABC systems frequently require a change in the way organisational structure is viewed, including change in reporting lines and relationship between the accounting function and operational personnel. The changes have been noted in the case studies as resulting in a shift in the balance of power, which created strong resistance to the ABC system, and blatantly uncooperative behaviour of parties that stood to lose (Major & Hopper, 2003; Rowe, Birnberg & Shields, 2008). In the case studied by Rowe, et al. (2008) the objective of implementing the activity based costing system was to identify and eliminate non-value adding activities, so to eliminate these and reduce costs. The ABC system took a process view of the organisation, while management were rewarded and received budgetary allocations based on functional divisions. As long as the performance and budgetary lines were delineated on a functional basis, management did not contribute any private knowledge in identifying non-value-add activities within their own functional departments as this would obviously lead to budget cuts.

3.3.4 Holistic comparison: Application of the three dichotomies to the Major and Hopper (2003) case

The findings of Major and Hopper (2003) support the theory that the challenge posed by ABC to the existing status quo can indeed pose a significant impediment to the successful use of an ABC system. Major and Hopper studied the implementation and subsequent use of an ABC system within a large Portuguese telecommunications firm. The ABC system was introduced in response to the firm facing full competition for the first time and the consequent cost information required by the Commercial Department responsible for pricing decisions. The implementation and use of ABC was problematic due to professional rivalry between the Commercial Department and the Engineering Department. For seven decades the information requirements of the Engineering Department had dominated the design of control systems, while the Commercial Department’s requirements had received low priority. This well established hierarchy was overthrown with the introduction of the ABC system, with the Commercial Department’s needs taking precedence. Further, significant employee resistance was experienced as a result of employees fears that information regarding activities performed and time expended on activities would be used to rationalise processes and eliminate activities considered non-value adding, assess performance, tighten budgets and support senior management strategies of downsizing and outsourcing. This resulted in staff resisting disclosing their labour time. The engineering department which required cost information in order to manage operational efficiency was reluctant to use the information generated from the ABC system, being sceptical as to its accuracy due to the inaccurate allocations of labour time.

This case demonstrates the role of the three dichotomies in describing the influence of institutions on the adoption and use of the ABC system. The revolutionary nature of the ABC placed demands on individuals within the firm which were foreign to them and the implications of the changes perceived as a threat. Consequently, the change was strongly resisted, particularly by non-accounting personnel. (This suggests that the ownership of the system by non-accounting personal includes an indication of revolutionary change, as proposed in Section 3.3.2.) The system was introduced despite the resistance due to strong top management support. A lack of informal change followed as a result of employee resistance, which leads to the ABC system being rendered ineffective from a decision support perspective. While formal change and top management support may be required to introduce an ABC system, it is considered unlikely that the system will be effective in meeting management's objectives where informal change does not occur (Burns & Scapens, 2000, Major & Hopper, 2003). Finally, the system change was met with opposition by parties wishing to maintain the power structures that existed pre-ABC and were overthrown as a result of the introduction of the ABC system. The dominance of the requirements of the Engineering Department was replaced by those of the Commercial Department.

The results of the case highlight the potential role of the dichotomies in explaining the influence of institutions on management accounting change.

- IN5 The changes that were successfully made to the formal management accounting practices of the university were accompanied by informal change and new ways of thinking and embracement of the changes by non-accounting personnel;
- IN6 ABC would have represented a revolutionary change to the organisation, and the changes that were instituted were evolutionary in nature; and
- IN7 The management accounting changes sought to preserve existing power structures, although economic necessity allowed existing institutions to be challenged and progressive change to occur.

3.4 Theoretical Propositions and Conclusion

The literature review provides the theoretical basis from which to draw the propositions that will be used as a basis for analysis of the case. The propositions are as follows:

Propositions relating to the influence of the institutions:

IN1 Ways of thought or action of some prevalence and permanence were embedded in the habits or customs of a group, or groups, of people existed within the university;

IN2 These affected the shape of the management accounting changes that were made;

IN3 Prevailing institutions prevented potential changes that were not in line with the existing institutions from being made; and

IN4 Institutions that were newer, and less removed from their origins were more easily overcome (where necessary), while more widely spread and deeply embedded institutions were not overcome.

Propositions relating to the process of change as informed by the dichotomies:

IN5 The changes that were successfully made to the formal management accounting practices of the university were accompanied by informal change and new ways of thinking and embracement of the changes by non-accounting personnel;

IN6 ABC would have represented a revolutionary change to the organisation, and the changes that were instituted were evolutionary in nature; and

IN7 The management accounting changes sought to preserve existing power structures, although economic necessity allowed existing institutions to be challenged and progressive change to occur.

Propositions relating to the non-consideration of ABC (technical considerations):

TE1 ABC was not considered to be more economically efficient than the solution effected;

TE2 None of the contextual factors identified in the ABC literature were important considerations in designing the changes that were made; and

TE3 An ABC solution would have been regarded as a practical impossibility, and accurate allocations could not be achieved.

The three propositions above summarise the three main points of speculation in the interpretation of the ABC paradox from a neo-classical economic perspective (Section 3.1.5).

Rival propositions relating to the relationship between institutional influences and economic rationality:

RH1 Prevailing institutions blocked economically efficient alternatives from consideration; or

RH2 Prevailing institutions had embedded technical logic and were consistent with the economically efficient alternative(s); or

RH3 Prevailing institutions were overcome by economic efficiency.

The case study is presented in Section 4 that follows. The propositions are tested against the empirical evidence in the case in Section 5.

CHAPTER 4
UNIVERSITY CASE

The case study investigates the change in management accounting practice in a medium-sized university over the period 2000 – 2006.

Investigating the university's decision to select a non-ABC approach to overhead allocation and cost management in preference to an ABC overhead allocation system may provide new insights into the relationship between economic-based and institution-based influences on management decision making. Analysing a situation that takes this perspective has potential to provide insights into the decision to favour a non-ABC cost allocation method although the method includes certain ABC principles. Analysing this case has potential to provide insights into the non-adoption aspect of the literature about which studies on organisations that have adopted ABC can only speculate. Given that the literature generally indicates low adoption rates of ABC, detailed case-study consideration of organisations sitting in the "non-adopters" pool is under-represented.

Many of the objectives and characteristics of this case are considered to be key indicators in the literature that ABC would be the economically rational solution: a large organisation wishes to determine the profitability of various business units, encourage efficient resource utilisation, create awareness of the units' responsibility for organisational overheads. In addition, a great deal of complexity exists with the business units being substantially different from one another in terms of their resource requirements[12]. Yet the organisation deliberately chose not to adopt an ABC cost allocation system, determining instead that overhead allocation should best be avoided. This decision was driven by management's understanding of what changes would be acceptable to the operational units. What the faculties would consider acceptable was governed by certain institutions that existed at the end of 2000. This case provides some insights on how those institutions developed, how they affected the process of management accounting change and how the institutions themselves came to be changed over time.

The context of this case is of further interest in that the changes in management accounting practice were accompanied by a turnaround and significant improvement in the financial health of the university, from the position where operational sustainability was in question at the commencement of the period. The changes in management accounting practice were regarded as a major factor in the turnaround.

The case is presented in two parts. The first part presents the case from the perspective of the Finance Department (Section 4.1). The changes in management accounting practices that occurred during the period 2000 – 2006 are described. The rationale for these changes are reported on from the perspective of the Finance Department who were responsible for the design and initiation thereof. The second part presents the case from the perspectives of other members of the senior executive of the university and the deans of the various faculties. The results of the corroborative interviews are reported on in Section 4.2 and a summary of the interviews is included in Appendix 13.

The analysis of the case and the factors influencing the Finance Department's decision making is presented in Section 5. The analysis considers the role of both economic rationality and institutional influences, applying the framework offered by Institutional Theory described in Section 3.2 and tests the propositions developed in Section 3.4. The case methodology was discussed in Section 2.1.

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[12] This is consistent with the argument presented in Section 3.2.1, and which is frequently presented in management accounting text books (e.g. Drury, 2004).

4.1 The Finance Department's perspective: Description of and rationale for changes in management accounting practice

At the end of the 2000 financial year the University of Cape Town (UCT) was in a poor financial position and faced concerns regarding operational sustainability. Although the budget was balanced, the cash inflow required to achieve this included practices that were not sustainable, such as the raising of a R20million loan and sale of a R12million building. Indeed, in 2000 the university had incurred an operating deficit of R45m. The initial budget for the 2001 financial year indicated an operating deficit of R150m, which was reduced to R83m, as detailed in Table 1. The actual deficit for 2001 amounted to R79m (Appendix 5).

Table 1: Budgeted operating loss on Recurrent Unrestricted Council Controlled Operations for the year ended 31 December 2001

Faculty	**COMM**	**EBE**	**Health**	**HUM**	**LAW**	**SCIENCE**	**GSB**	**ACCOM**	**Total**
	R'm	*R'm*	*R'm*	*R'm*	*R'm*	*R'm*	*R'm*	*R'm*	*R'm*
Operating Income	98	86	106	104	34	125	59	73	685
Fees	52	22	23	54	15	36	31	73	306
Subsidy	46	64	78	46	19	80	4	0	337
Other Income	0	0	5	4	0	9	0	0	18
Accommodation							24		24
Operating Expenditure	59	55	71	87	19	94	62	65	511
Staff academic	22	23	22	48	11	41	5	0	171
Staff non-academic	8	10	25	8	2	19	6	10	88
Staff non-recurrent	10	4	3	7	2	3	9	3	41
Space	10	11	14	16	3	22	4	0	80
Operating	9	7	7	8	1	9	38	52	131
Faculty Contribution	39	31	35	17	15	31	-2	8	174
Overheads									258
Operating Deficit									-83

Source: Uliana (2002)

This poor financial position was not the result of unusually large outflows in 2001, rather reflecting the downward spiral in the university's financial situation over the preceding years. Several factors were considered by university management to have contributed towards the situation: the lack of incentive for faculties to increase revenues, a mindset that cost reduction was not possible and a denial of faculties' responsibility for university overheads.

One third of the university's required funding came from the state. Consequently, two thirds of the revenue had to be earned. Consistent with the university's collaborative ethos, control was highly devolved and faculties had autonomy in determining their own student numbers and setting fees for the programmes they offered. However, the faculties, under the fund accounting system in place at that time, received a fixed allocation and did not receive any reward or increase in the allocation for increasing the revenue generated. As a result there was no incentive for faculties to increase revenues by raising fees or increasing student numbers.

The fund accounting system had focused the faculties on the fact that they had a job to do and would receive an allocated amount to do that job. Consequently, the belief arose that in order for the faculty to do more, it would need to receive a greater allocation. This led to budgeting games where faculties would request more than was necessary presuming that they would not receive their full allotment. Cost efficiency was not encouraged as achieving cost efficiency would result in a smaller allocation being required. A mindset developed whereby variable costs could be reduced, but spending less regarding fixed costs and overheads was considered impossible.

4.1.1 Initial changes in management accounting practices

In order to improve the financial position and operate in a sustainable fashion, the university needed to increase revenue earned and curb the upward spiral of overheads by improving efficiency. However, university management was aware that their ability to initiate measures to influence the practices of the faculties or improve cost management was hamstrung by mistrust of university management. Faculties viewed management as having succumbed to a level of managerialism inappropriate to an academic institution. This was the consequence of past management control structures and decisions that divorced faculties' decision making perspective from that of university management and allowed the basic tenets underlying faculty and university management to develop in different directions. Several key factors that had contributed towards this situation could be identified.

The university ethos of devolved consultative decision making was consistent with the ideals of academic freedom and pursuit of excellence, which were highly valued and fiercely guarded by the institution. However, the decision making process had devolved to such an extent that no parameters were applied to faculties who could do whatever they wanted to with the allocation. Faculties' mindset that their responsibility was first and foremost to "do the job that they had to do" and should be allowed the freedom and resources required to do it, had become firmly entrenched under the existing management accounting system. Consequently, it would be difficult for university management to convince faculties to reduce expenditure. In the past, various attempts had been made to fully allocate university overheads to faculties with the objective of creating understanding of the need for faculties to generate sufficient profit for university overheads to be covered. The cost allocation practices were regarded as unfair and arbitrary, yet they informed far-reaching operating decisions. Unsatisfactory past attempts to measure faculty profit, coupled with highly contentious decision making based on that information and the poor financial situation resulted in university management having little credibility and little influence over the thoughts and decisions of faculties.

The poor financial situation dictated that overheads had to be curtailed and resources used more efficiently. The vast majority of the total overheads incurred by the university were driven by faculty activities. Consequently, it was important to create awareness amongst faculties of the resources that they utilised.

Given the divisive and traumatic damaging effects of overhead allocation practices of the past and loss of credibility that ensued, the Finance Department did not believe that another change in overhead cost allocation (even if based on rational cost drivers) could be used to encourage faculties to be more aware of the resources they consumed. Changing faculty behaviour towards more efficient resource utilisation would have to be effected in ways other than revised cost allocation.

The Finance Department determined that the initial objective was to change faculties' mindset regarding two key ideas:

- that faculties were expected to manage not only their costs but also their income, thereby being accountable for the bottom line; and
- that the faculty bottom line is a contribution, and not a profit, and that the reality of overheads had to be accepted. This would be a challenge as the deans regarded overheads with suspicion, justifiably so given the inefficiencies and inaccuracies in the system.

The Finance Department also determined that any initiative would be constrained by two parameters:

- faculties would not accept a reduction in costs (this was believed to not be possible); and
- overhead allocations would have to be avoided.

The first initiative was to curtail cost increases. Increases in expenses were set at an inflationary increase of 7% in the first year, 0%, 2% and 4% in the following years respectively. This would achieve a 12% – 13% decrease in expenses in real terms, without cutting costs in nominal terms. An inflationary increase was allowed in the first year in order to give faculties time to digest and plan for the lower increases over the next three years. As an incentive faculties were allowed to retain any improvement made on the bottom line[13]. As the university operated with a highly devolved, collaborative ethos, the low increases could not simply be enforced, but had to be agreed to by the deans. The CFO discussed the proposed changes with each dean, prior to the changes being formalised. The CFO had been appointed recently and had previously been the Head of Accounting within the Commerce Faculty and was well regarded as an academic. The individual discussions that ensued and the academic

[13] This incentive became loosely known as “keep your surplus”, meaning surplus against budgeted performance.

background of the new CFO alleviated some of the concerns regarding an overly managerial approach to financial management and the proposed changes that did not compromise the faculties' deeply entrenched beliefs were accepted.

The effects of the low increases and "keep your surplus" were significant. At the end of the first quarter of 2002, the Finance Department forecast a break even at the end of 2002, two years ahead of schedule; the second quarter results confirmed this (Appendix 5). This led the Finance Department to reconsider whether further changes to the financial system would be possible to achieve. The Finance Department had previously not believed that a change in system would be accepted when the university was running at a deficit. However, the positive result had the effect of improving the credibility and creating an openness among the deans to consider new ideas relating to the financial management of the university. The Finance Department decided to introduce further changes with the aims of:

1) getting faculties to manage their bottom line; and
2) getting faculties to accept that overheads exist.

In keeping with the consultative ethos, the next initiative was not a change to the system, but a discussion of the return on assets (ROA) generated by each faculty. ROA was not instituted as a performance objective but instead the ROA for each faculty was calculated on the 2001 figures by the CFO and presented in a discussion at a senior leadership workshop comprising the senior executive of the university including the deans. A few adjustments were made to the accounting numbers in order to highlight the use of resources. Resources not recognised as assets on the balance sheet, such as people and space, were capitalised[14]. A multiple of five was applied to the cost of employment in order to capitalise people, on the basis that staff either reinvented themselves every five years, or left the organisation. Space was capitalised by applying a discount factor to the maintenance costs. This produced a value that was close to the insured value of the property and was readily accepted as a reasonable figure. ROA was intended to create openness towards the idea of

[14] Accounting practice at the time did not reflect reasonable values for property on the balance sheet, nor was it split on a faculty basis.

responsibility for both income and expenditure and efficient utilisation of all resources. This proved to be an important catalyst in subsequent developments.

4.1.2 Addressing overheads: Introduction of overhead “taxes”

The decision to re-introduce an overhead charge was not expected to be readily accepted by the faculty deans, given the problems that had been caused by the previous overhead system. In addition to the technical questions regarding the allocations; even greater resentment had been engendered by the practice of allocating the costs of the administrative departments to the faculties. Faculties regarded many of the administrative departments as being inefficient and ineffective. The practice of allocating the costs of these departments to faculties was seen as supporting inefficiencies and allowing overinflated costs for poor service levels to be perpetuated. Consequently, management chose to re-introduce overheads into budgets as a set of taxes, rather than purporting to allocate overheads on the basis of pre-determined rates and activities. Five taxes were introduced:

- Fee tax: Faculties were awarded 70% of the fee revenue they generated. 30% was contributed towards university-wide costs. Faculties had not been credited with fee income previously;
- Subsidy tax: Faculties were awarded 80% of the government subsidies earned;
- Space tax: Faculties were charged a rate per m^2 of space[15] used by the faculty. The rate was determined by discounting the lowest commercial rate that could be obtained in the area by 25% so that no faculty could make the argument that they were being overcharged for space. Faculties’ budgets included a space allocation that was set in accordance with international benchmarks and charged according to actual space used. Only space that was set aside for the exclusive use of the faculty (e.g. offices, reception, dedicated

[15] The m^2 was weighted to reflect the intensity of use (e.g. laboratory space was weighted by a factor of 1.5, being more costly to maintain than normal classroom space) The weighted m^2 was referred to as a space cost unit.

classrooms, meeting areas and laboratories) was subject to the space charge. Teaching venues shared by several faculties were not charged.

- Staff tax: Faculties were charged an additional 20% on the cost to company of their staff, including academic and administrative staff, as well as tutors.
- Research cost recovery: Budgets had to include an income line for the recovery of costs associated with research and other specifically funded activities.

These charges were not implemented immediately. The charges were discussed with faculty deans over a period of several months. These discussions were received as a logical continuation of those that had been held previously (and found interesting) regarding ROA and the importance of using resources effectively. A notional space charge had been included from the 2000 budget onwards and deans were comfortable with the progression to budget for a space charge based on a standard level of occupancy and to incur the actual charge based on space actually used.

The taxes selected were based on what the Finance Department regarded to be the main cost drivers of overheads: student numbers, staff numbers, space consumed and research activity. The taxes would not result in an accurate cost allocation with respect to cost incursion. The objective was to focus faculties on managing these key cost drivers effectively; mindful that increases in these factors would drive their own overheads up. The space charge provides a particularly clear example of this objective. However, while individual allocations were not intended to be accurate, on an overall basis the taxes roughly equated to the common overhead cost of the university.

The cost of space is considered to be one of the major fixed costs of the university and the demand for space increases year on year. Over the period 2000 – 2006, R625m was spent on new buildings and major refurbishments. The introduction of the space charge was intended to curb opportunistic invasion of free space. The amount of space used per faculty was readily available as this information was accurately tracked and regularly reported on within the university. The benchmarking exercise to establish the standard amount of space revealed that the actual amount of space was exceedingly generous by international standards. The budgeted space charge allocation allowed for a more generous allocation than the international standards, in recognition of the generous space allowances that had existed historically and were considered norms by staff. The introduction of the space charge caused one department to consider moving into a smaller building. The benchmarking exercise compared space utilisation relative to staffing numbers.

The actual space consumption per staff member and per student has not been calculated per faculty since the introduction of the space charge. The reason for this is that the affect of the reforms is considered to be cumulative and the success thereof is evident in the strong improvement in the bottom line (Appendix 5).

For the purposes of this study the actual space consumption per staff member and per student was calculated per faculty in order to identify whether there had been any noticeable change as a consequence of the introduction of the space charge (Appendices 6, 7a and 7b).

All faculties show an increase in space utilised relative to staff numbers [Appendix 6: Space to Staff ratios per faculty (m^2 per staff member)) post the introduction of the space tax (2004 – 2006 relative to 2000 – 2001)]. This may be related to decreasing staff numbers (Appendix 8: Staff headcount per faculty) across faculties, without a corresponding, proportional decrease in space (staff recreation areas, higher degree venues would remain unchanged). Only the Humanities and Science Faculties show a reduction in the space used relative to student numbers post the introduction of the space tax, whether weighted or non-weighted student numbers are used, while Engineering (EBE) shows improvement on unweighted student numbers only. University management attribute the improvements in the ratios to increase in students numbers. The Commerce and Law Faculties show a large increase in space consumption relative to student numbers. Both of these faculties moved into new, larger buildings which caused the increase in the ratios. In the case of the Commerce

Faculty the move was to accommodate facilities such a new and much larger computer laboratory, and was not the result of opportunism.

A noticeable reduction in staff numbers occurred in 2002, the year of the 0% increase, after the introduction of the financial initiatives described in this study (annual headcount in 2004 – 2006 consistently lower than 2000 – 2001) (Appendix 8: Staff headcount per faculty). A sizable increase in students to staff numbers occurred in 2002 (Appendix 10: Percentage change in Full-time Equivalent (FTE) student to full-time academic staff ratios), predominantly attributable to a decrease in staff number in that year (Appendix 8: Staff headcount per faculty). An increase in student numbers occurred in all faculties except law in 2002 [Appendix 11: Student per faculty (not weighted)).

These apparent reactions to the changes that were introduced were identified for discussion with the faculty deans, and further insights are included in Section 4.3.

4.1.3 Conclusion on the Finance Department's perspective

The case reports that from the perspective of the Finance Department:

1) There was a need for the university to recover from the dire financial situation it had spiralled into by the end of 1999.

2) The Finance Department drove the process of financial recovery by making changes to the management accounting practices of the university, which in turn prompted change in the way the faculties and support departments of the university were viewed and managed.

3) The changes in managerial accounting practice were selected with reference to both economic rationality, and institutional factors. In particular, the Finance Department was cognisant of existing institutions or "ways of thinking" that

existed within the university. This influenced the way the changes were shaped, timed and communicated.

4) The Finance Department did not (and still does not) consider the influence on existing ways of thinking within the organisation on management accounting practices to be non-rational, or to result in the selection of solutions that were economically sub-optimal. Rather, the Finance Department views management accounting techniques to be a set of principles, many of which can be used to achieve the same objective, and that these techniques should be selected and used in whatever manner will be most effective within the context of the organisation. They do not view management accounting techniques as mechanical or rigid in design, standing in isolation from the broader management of the organisation, but rather as extremely malleable, with any principle embodied in any technique being capable of being extracted and integrated into any other management technique, accounting or otherwise. In the case of this case study, the evidence of the Finance Department's decision making processes is that they required any changes to the management accounting practices to be both economically rational, and institutionally rational. The latter was required in order for the change to be accepted within the university, a necessary requirement for the change to achieve the desired outcome. This approach to management accounting practice is a result of the Finance Department's view that the effectiveness of a technique is not bound up in its technical merit, but primarily determined by how the technique is managed.

5) The ways of thinking within the university that the Finance Department reports as influencing the changes in management accounting practice that occurred are as follows:
    I. suspicion that university management had become overly managerialist, inappropriate to an academic institution;
    II. that academic endeavour and the pursuit of academic excellence should drive decision making within the university and that faculties (academic

departments) should not curtail academic endeavour for financial reasons, and it was not the job of faculties to be concerned with, or responsible for, ensuring the availability of adequate financial resources. Financial feasibility was not an appropriate criterion to evaluate academic endeavours against;

III. a view amongst faculties that cost reduction (within faculties) was impossible without reducing the scope of academic activities;
IV. that every faculty was different and it would be inappropriate to base decisions on any detailed set of metrics as it was impossible to capture the uniqueness of each of the faculties;
V. that the university was generally unable to generate accurate information that could be relied on; and
VI. general suspicion regarding the validity of, and motive behind, allocating university overheads (any cost not directly incurred by faculties) to faculties.

The changes that were instituted by the Finance Department to drive the process of financial recovery were designed with reference to two key criteria: economic rationality and the ways of thinking that existed within the university. The Finance Department reports that in determining what management accounting practices would be most effective they considered both the underlying logic of the measures considered as well as the anticipated reactions of those who would be responsible for implementing the measures to be introduced. The reactions of these key protaganists would determine whether the technique was likely to work as technical logic dictated. The reaction of the deans, the operational heads of the various faculties, was considered to be particularly important, as significant changes were required in the way faculties operated, in order for the university to recover from the financial situation it had sunk into.

4.2 Perspectives of the Deans and Senior Executive: The results of the corroborative interviews

This Section reports on the perspectives of the deans and senior executive as to the changes in management accounting practices described in this study. The purpose of the interviews was twofold:

1. to gather evidence in order to evaluate the report of the Finance Department, particularly as regards:
    a. the prevalence of the institutions[16] identified (were these real or perceived?); and
    b. the changes in these in response to the management accounting practices introduced.
2. to identify other significant factors that may have influenced the changes in management accounting practices and prevailing institutions.

Interviewees were asked to respond to a broad opening question, to describe the decision making processes and structures within the university with a focus on the period 1999 – 2007, in order to identify the key attributes of the university's decision making over this time, in the minds of the interviewees. This also provided an opportunity to observe the prevalence and strength of the ways of thinking included in the interviewees' answers. The interview protocol was discussed in Section 2.1.4.

The interviews sought to investigate the key contentions of the case study regarding the factors that influenced the changes in management accounting practices, from the perspective of the individuals in the Finance Department. These are presented in Section 4.1.3 above.

The insights offered by the various interviewees regarding these ways of thinking are discussed under their respective headings below.

[16] Note that the term "institution" continues to mean "the generally accepted ways of thinking and doing in an organisation", and should not be interpreted as a synonym for "the academic organisation".

Early on in each interview it became apparent that changes in the official decision making structures and reporting lines were closely linked to the interviewee's view of how things were and should be done. Each interviewee identified certain major attributes of the decision making structures that existed immediately before or were concurrent with the changes in the financial management of the university. As these important attributes provide the context for understanding and interpreting the interviewees' comments and views expressed, a brief summary of these as described from the interviewees' perspective are presented before the detailed results are analysed.

4.2.1 Changes in reporting and decision making structures

The decision making structure of the university underwent several major changes in the period 1999 – 2007. Under the system in place until 1992, deputy registrars reported to the registrar and policy committees (sub-divisions of Council[17]) reported to Council. The Finance Director reported to the deputy registrar and was not a senior decision maker. A significant change occurred in 1996 when the new VC elevated the role of Finance Director to the equivalent of CFO.

This change was described by the DVC as being one of the biggest changes in the decision making structure prior to 1999. The other four interviewees were appointed to their posts of dean and chair of the Finance Committee respectively in 1999 and didn't experience the change in the system from deputy registrars to executive directors first hand and did not provide any commentary on this.

The second major change that occurred in the allocation of decision making within the university occurred in the late 1990s, being the devolution of control to the deans of the various faculties. This move away from exclusively centralised to more decentralised management was experienced and commented on by all five

17 Council is roughly the equivalent of the Board of Directors in a commercial concern and is in charge of all non-academic matters within the university. The responsibility for all academic matters falls to the University Senate.

interviewees. Prior to this university decision making was centralised, through the system of departments and executive directors who reported to the VC. University decision making was carried out by the senior executives, and deans were not included in this senior decision making body. In some instances significant decisions were made by the VC together with one DVC, as opposed to the entire senior executive. In the late 1990s a system of executive deanship was introduced whereby deans assumed responsibility for decision making within their faculty and were authorised to make many types of decisions that had previously been decided centrally (e.g. staffing levels).

The deans were still initially excluded from the major decision making of the university (long term planning, strategy and allocation of resources) which were still the domain of the senior executive as described previously. All interviewees describe the deans as being unhappy with this situation, that many debates ensued as to what constituted an appropriate leadership structure, that tensions existed between the senior leadership and deans, and that the deans "revolted". This prompted greater consultation and inclusion of the deans in university decision making.

Concurrent with these changes was the appointment of the current CFO (FD) in 2000, who was an academic, well known to, and respected by, the deans. All interviewees expressed great satisfaction with this appointment. The interviewees report that the new FD imposed a series of budget restrictions and changed the budgeting system to hold faculties responsible for their own bottom line (known as "the ROT", discussed earlier in the case study) and allowed faculties to retain any improvement in financial performance against that budgeted[18]. The deans reactions to these changes are reported on specifically later, but at this point it must be noted that in hindsight they are overwhelmingly positive regarding these changes, particularly being able to "keep your surplus" and having the freedom to spend this as they deemed fit. All interviewees report that a steady improvement followed in the relationship between deans and university management, and amongst the deans themselves, who describe themselves as not being a co-ordinated group previously. They also view the financial management changes as successful.

The important high-level insight provided by the above is that the increase in financial responsibility that the changes in management accounting practices required followed closely on the increase in general decision making authority devolved to the deans.

It was also apparent that the two members of the senior executive interviewed reflected on the changes that occurred with reference to broad trends and ideas pervasive throughout the university (similar to the way the Finance Department reflected on their rationale for the changes that they instituted), while the deans reflected on the changes and their role therein, in a more detailed, event-orientated fashion. The deans offered a summative view that gave direct evidence of the way of thinking that might exist only when prompted (i.e. the deans offer great detail to what happened, rather than a reflection on their own reactions to what happened). Given that one of the objectives of the corroborative interviews was to establish the deans' ways of thinking (institutions) at the time in order to corroborate the Finance Department's view of the ways of thinking, it is consequently necessary to interpret the deans' detailed reaction to specific occurrences and draw conclusions on the ways of thinking.

The detailed transcripts of interviews are not included due to the sensitive nature of some of the information. The interviews are reported on in two groups – being the view offered by the members of the senior university management (who are considered to be reasonably independent of the outcome of this case study as they did not have a direct interest in any aspect of the events reported) and the deans who were directly affected by the management accounting changes. The specific interviewee is not identified in order to maintain a measure of anonymity.

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18 This system was loosely, and somewhat inaccurately described as "keep your surplus". If a faculty made a loss, but a smaller loss than budgeted, they could retain the difference, despite not having generated a surplus of funds

4.2.2. Results of corroborative interviews[19]

As the objective of the interviews was to gather evidence regarding the existence and prevalence of the institutions and any change in these in response to the management accounting changes that were made, the results of the interviews are reported separately for each institution. A summary of these results is provided in the conclusion to this section.

Institution #1: The suspicion that university management had become overly managerialist, inappropriate to an academic institution;

Interviews with the deans provided some corroboration of the Finance Department's perception that faculties viewed university management as having become overly managerialist. None of the deans raised this criticism directly, but did describe the relationship between university management and deans being characterised by mistrust. The deans also identified practices that were in their opinion overly administrative. In contrast, the interviews with the two senior executives provided firm and explicit corroboration of the Finance Department's perception.

There is evidence from all interviews conducted that suggests how the view that management had become overly managerialist developed: the decisive, autocratic leadership style of the VC was in stark contrast to the academics' deeply entrenched way of thinking that the way things are done within a university is characterised by collegiality, consultation and discussion. This underscores the rationality of taking so-called non-rational factors, such as existing ways-of-thinking (or institutions) into account in the decision making process. The result of a leadership style that was at odds with the academics way of thinking regarding how things were done led to great mistrust.

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relative to their own costs. The surplus refers to improvement on budgeted performance.
[19] Refer to Appendix 13 for a detailed summary of the corroborative interviews relating to the various ways of thinking identified by the Finance Department.

All interviewees commented that this view had reversed and the current Finance Department was held in high regard.

Institution #2: That academic endeavour and the pursuit of academic excellence should drive decision making within the university and that faculties (academic departments) should not curtail academic endeavour for financial reasons, and it was not the job of faculties to be concerned with, or responsible for, ensuring the availability of adequate financial resources.

The consistent message was that academic concerns should take precedence in decision making, but it was necessary to be cognisant of financial constraints. All interviewees expressed the view that the fact that the current Financial Director (appointed in 2000) was then, and continues to be, a well-respected academic in the mainstream of academic endeavour was a critical factor in determining the success of the finance function and financial reform of the university. That the CFO appreciates the priority of academic endeavour is viewed as a major contributor towards the fact that the finance function of the university has been as successful as it has been.

None of the deans expressed the view that they felt it was inappropriate for a dean to manage their faculty from a financial perspective, although two of the deans indicated that this view was prevalent amongst a number of academics. The Chair however strongly corroborated the assertion of the Finance Department that faculties had viewed financial management as an inappropriate concern for an academic department.

There was general agreement that significant headway had been made in getting faculties to accept the need to think in a more business-like fashion. This may explain why there was no evidence of the view that it is inappropriate for faculties to be concerned about finances found amongst deans in 2009. The deans do consider increased financial responsibility (and freedom) as inextricably linked to devolution of control and executive deanship.

Institution #3: A view amongst faculties that cost reduction (within faculties) was impossible without reducing the scope of academic activities

Limited evidence was found of this way of thinking which largely was not commented on, with the exception of one dean who confirmed that his faculty had not believed that cost reduction was practically possible. This belief reversed when they conducted their own investigations into resource usage within the faculty.

Institution #4: That every faculty was different and it would be inappropriate to base decisions on any detailed set of metrics as it was impossible to capture the uniqueness of each of the various faculties in these.

There were various indications in the interviews that this belief existed, and continues to exist. This was evident when the detailed metrics included in Appendices 7 – 12 were discussed with interviewees, where some of the deans interviewed indicated that the measure may not be representative of changes in their faculties due to operational differences. The senior DVC summed up the situation: “There are no comparable measures…the faculties are all different.” He made the point that there had been previous attempts to develop common models, which were “dead in the water” because “there are huge irreconcilable differences”.

Institution #5: That the university was generally unable to generate accurate information that could be relied on

This was corroborated by the majority of interviewees and several examples were provided to substantiate the point. The institution was further evidenced by faculties' responses to the year-on-year changes in the metrics reported in faculty reports (presented in Appendices 6 – 12). The majority of interviewees indicated that the numbers must be wrong as certain levels of staffing and students had never been reached, that the significant changes were operationally improbable and likely the result of a change in the way the numbers were reported. Further evidence in faculty reports suggests that this is likely to be the case.

Institution #6: General suspicion regarding the validity of, and motive behind, allocating university overheads (any cost not directly incurred by faculties) to faculties.

There was some corroboration of this view, with concern being expressed that a detailed cost allocation system would not have been desirable as it would have “run the university”.

In general the deans do not regard the system of “taxes” as an attempt at overhead allocation. Rather it is considered to be a charge for a service whereby faculties are paying a fair amount for the service (perhaps market related or taken from best practice, perhaps at discount to rates that might apply to a corporate) and are consequently entitled to demand adequate service levels.

There was also clear evidence that the fact that faculties were taxed for use of resources (for example, the tax based on space occupied by the faculty) had an influence on the decisions faculties have made and an awareness of what resources cost.

An insight from the interview with the Chair was that the choice of a system of taxes, rather than a more obvious overhead allocation method, was largely based on anticipated behaviours. Firstly, in his opinion and experience, any form of overhead allocation always invites challenge. With the bulk of overhead allocation being arbitrary, arguing about methodology is completely unproductive. Overhead allocation would have lead to an argument at UCT. Secondly, as the result of paying a charge for a service is that a good service level is demanded and the service centre is held to a similar kind of accountability that the faculties were under.

This supports the view of the CFO that various management accounting techniques can achieve the same result. It is the art of management to design a system based on the principles that underlie the techniques that best fit the organisation and the objective that is intended to be achieved.

Hypothetical Question: Response to an ABC cost allocation?

A hypothetical question was posed to interviewees: "What would your response to an ABC cost allocation have been?" The purpose was twofold. First, to test whether the ways of thinking that existed would manifest in the resistance anticipated by the Finance Department. Second, whether the considerations that the Finance Department had identified in their decision not to follow a detailed cost allocation route found any resonance with the deans or other members of the university management. This would provide some indication of whether the Finance Department's perceptions of the ways of thinking within the university were shared by other parts of the university, or not.

The proposal was not immediately rejected. However, the deans' responses show existence of several institutions:

1) Institution 5, the belief that the university was unable to generate accurate information at that time, was the institution most frequently expressed by the interviewees. This was frequently accompanied by the comment that the university would probably be able to generate accurate information now.
2) Institution 4: Two deans commented on the fact that faculties were sufficiently different from one another for no particular measure to be accurate;
3) Institution 1 and 2 and 6: One dean commented that the system would be used to inappropriately drive decision making in the university, instead of academic endeavour being paramount, which is reflective of an overly managerialist concern. This concern may well stem from the instance, referred to in the body of the case, that operating decisions had previously been imposed on one faculty influenced by an inability to cover overheads. (i.e. In the previous attempt at overhead allocation, the overhead allocation was seen to drive

operating decisions.) The response is of particular interest as this dean is a strong proponent of the economic sustainability of faculties and relevance of financial considerations in faculty and university decision making.

Almost all of the institutions described manifested in the interviewees responses to the suggestion. Refer to Appendix 13 for a detailed analysis of these responses.

Evidence that the changes made faculties more aware of their financial bottom line, and encouraged improvement therein and relationship to the improvement in the university's financial situation?

There was a variety of evidence from all interviewees that the various measures introduced have been successful in encouraging the management of costs and generation of revenue. Increased focus on revenue was reported as result in faculties leveraging off their product (e.g. introduction of courses focussed on continued professional education), without losing sight of their central purpose. Retention of surpluses against budget was effective in curtailing wasteful expenditure at year end, and more efficient use of resources. The DVC described the financial policy as being remarkably successful, the most important change in 17 years.

4.2.3 Summary of results

The interviews corroborated the existence of all institutions identified in the case study (Table 2). Interviews conducted with the senior executive generally offered stronger corroboration as the two members interviewed addressed the matter directly and expressed firm views that were consistent with one another. Evidence gathered from interviews with the deans was more varied and nuanced, although the overall message in each case was corroborative. Evidence that these institutions have changed since 2000 is relevant to two considerations:

Firstly, this information is needed to address the questions of whether (1) the institutions changed in response to the changes made to the management accounting practices and (2) the institutions that were newly established were overcome, while more deeply entrenched institution were more difficult to alter. Secondly, as the interviews were conducted eight years after the fact, the strength of opinion expressed at the time of the interview in 2009 when reflecting on 2000/2001, may be different from the strength of opinion that prevailed at the time the changes were introduced.

Table 2 Corroboration of the existence of institutions and changes therein

	Level of corroboration		
Institution	**Deans**	**Senior Executive**	**Change in Institution**
1. Overly managerialist, should be collaborative process	Some	Strong	Yes
2. Academic endeavour paramount	Strong	Strong	No
Financial Management not faculties' responsibility	Some	Strong	Yes
3. Cost reduction impossible	Some	Not indicated	Yes
4. Faculties too different for common metrics	Some	Strong	No
5. Unable to generate accurate information	Strong	Strong	Yes
6. Suspicion regarding overhead allocation	Some	Not indicated	No

How these influences shaped, and were shaped by, the change in management accounting practices is considered in Chapter 5, where the empirical evidence in the case is analysed in terms of the theoretical propositions.

CHAPTER 5
CASE ANALYSIS

The case describes the change in management accounting practices in measuring faculty profitability over the period 2000 – 2006. It provides the opportunity to observe the influence of both institutional factors and economic rationality as well as their interaction in influencing the process of management accounting changes at the university.

The analysis is presented in four parts:

- the first analyses the existence and permanence of institutions in the case study (Theoretical Propositions 1 & 4);
- the second applies the three dichotomies of Burns and Scapens (2000) framework to understand the interaction between institutions and management accounting changes (Theoretical Propositions IN2, IN3, IN5, IN6 & IN7);
- the third considers the role of neoclassical economic rationality and its articulation with prevailing institutions (Theoretical Propositions TE1 - 3 and RH1 - 3);
- the fourth section reflects on interesting insights arising out of the case regarding the management of institutional change and concludes on the match between the theoretical propositions and actual results.

5.1 Existence and influence of institutions on management accounting practices

This section considers the match between the facts of the case, and the existence and nature of institutions. It does so by comparing the definition and characteristics described in the literature to the actual circumstances of the case. The two Theoretical Propositions that relate to the existence and nature of institutions are:

IN 1 Ways of thought or action of some prevalence and permanence had become embedded in the habits or customs of a group, or groups, of people within the university

IN 4 Institutions that were newer, and less removed from their origins were more easily overcome (where necessary), while more widely spread and deeply embedded institutions were not overcome

In this case several institutions are evident that informed and shaped the actions of university management and faculties. The strongest, most pervasive and unchanging institutions were that academic considerations should drive decision making, and that university decision making should be the result of a discursive and collaborative process. This institution had developed out of regard for academic freedom, debate and excellence, making it unthinkable that university management could simply impose any initiative on faculties.

More recent institutions had also developed amongst faculties, who had come to share certain noticeably prevalent ways of thought that informed which of the changes in management accounting practice they would accept. The faculties generally shared several beliefs:

- that faculties had a job to do and that resources should be available to do that job, preferably without interference;
- faculties could not be reduced to being viewed in financial terms, with the focus on the bottom line, especially given the diversity amongst faculties, and that each faculty believed itself to be unique in some way; and
- that university management had become overly managerial and that financial measures introduced were likely to be unbecoming and out of line with the core objectives and responsibilities of a not-for-profit academic institution.

These institutions were the result of past practices. The fund accounting system in place for many years had reinforced the belief that the job of the faculty was to do academic teaching and research, and the job of university management was to provide the necessary resources. This had the consequence of making faculties unwilling to accept cost reductions on the basis of the firmly held belief that cost reduction relating to fixed costs was impossible to achieve without compromising the work of the faculty. This also created denial amongst faculties regarding the reality of and faculties' responsibility towards university overheads: the university management was there to provide funding to faculties, not vice versa. The idea that faculties should be subject to cost reductions, which would negatively affect faculties' ability to perform their job, in order to fund central overheads was unpalatable to faculties. Faculties did not have a business mindset, a general outlook that was reinforced by the fact that faculties had received no financial reward for increases in fee revenue or achieving cost savings. Faculties did not regard generating revenue as a primary objective. Previous unfortunate experiences with changing management practices, such as the attempts at overhead allocation and determining an all-inclusive faculty bottom line, had contributed towards faculties' belief that university management was becoming overly managerial in their view of how academic faculties should operate, and guilty of applying a set of inappropriately commercially biased priorities to decision making.

The result of these institutions was that operating practices became subservient to the generally accepted way of thinking. For instance, increases in fee revenue were crucial to sustainability given the proportional decline in subsidy revenues, but faculties did not attempt to increase student numbers or fees prior to the initiatives described in this case for a variety of reasons. Increasing student numbers without receiving a corresponding increase in allotment was regarded as having the inevitable, undesirable and inescapable consequence of forcing the faculties to compromise on quality and academic endeavour. Such a trade-off was considered to be an overly managerial perspective. That operating practices and decisions became subservient to the prevailing institutions, is consistent with the findings of one of the few existing case studies in the literature (Burns & Scapens, 2000)[20].

[20] In the case of a plastics manufacturing company, operations were halted in order to run down stock levels at year end to improve year end accounting figures, despite the fact that the interruption did not make business sense and was in fact detrimental to production. The study reports that this decision was simply seen as the organisations' "way of doing things" (Burns & Scapens, 2000).

These findings above give evidence of the existence of institutions, and are consistent with Theoretical Proposition IN1 (Section 3.4). Ways of thought of some prevalence and permanence had become embedded in the customs of a groups of people within the university. These institutions came to inform operating decisions and were socially constructed, arising out of past practices which had become routine, and the institution divorced from its origin. The question of how the institutions were formed is not an area of investigation in this study, but it is notable that the social construction of a number of institutions was so apparent.

The pre-eminence of academic endeavour in decision making is an example of an institution that had been long established, divorced from the reason it initially arose and become deeply entrenched. This institution was not changed by the management accounting changes that were made and the pre-eminence of academic concerns in driving decision making remains. In contrast to this, newer ways of thinking that had emerged in response to circumstances and events that were still fresh in faculties' memories showed evidence of being more transitory. Some of these were altered during the period under review. One example is the view of faculties that university management had become inappropriately over managerialist. Members of university management (Finance Department and senior executive) are adamant that this was a strong belief at the time, yet there is no evidence of this in the faculties' current thinking. All parties are very aware of the circumstances causing that belief to arise, and to be changed.

The implication of this is that newer institutions can be overcome, while deeper institutions have to be worked around, can perhaps be altered, but not removed.

5.2 Institutional change and the process of change in management accounting practices

The dichotomies are used as a framework to understand the influence of institutions of the process of management accounting change. Consequently, theoretical propositions IN2, IN3, IN5, IN6 and IN7 which relate to the relationship between institutions and management accounting practice are considered in this section. These are:

- IN2 The prevailing institutions affected the shape of the management accounting changes that were made;
- IN3 The prevailing institutions prevented potential changes that were not in line with the existing institutions from being made;
- IN5 The changes that were successfully made to the formal management accounting practices of the university were accompanied by informal change and new ways of thinking and embracement of the changes by non-accounting personnel.
- IN6 ABC would have represented a revolutionary change to the organisation, and the changes that were instituted were evolutionary in nature.
- IN7 The management accounting changes sought to preserve existing power structures, although economic necessity allowed existing institutions to be challenged and progressive change to occur.

The institutions described strongly influenced the process of management accounting change that occurred between 2000 and 2006 within the university. University management did not believe that they could simply select and impose management accounting system changes with any success. Instead they recognised that certain ways of thinking had developed which had to be taken cognizance of if change was to be brought about successfully. Consequently university management identified solutions that would be accepted by faculties.

In these actions it is possible to observe the practical operation of the three dichotomies Burns and Scapens (2000) describe as useful in explaining the process of management accounting change: formal and informal change, revolutionary and evolutionary change and regressive and progressive change, as discussed in Section 3.2 and 3.3.

5.2.1 Formal and Informal Change

The conscious design of changes to the management accounting system by university management constitutes a formal change. Burns and Scapens (2000) suggest that formal change may need to be accompanied by informal change and new ways of thinking in order to be successful, unless those responsible for implementing the change have sufficient power to impose change. In this case the consequence of the devolved decision making process of the university was that university management did not have sufficient power to impose change, while faculties had sufficient power to resist or subvert changes.

The path of successful change in management accounting practices described in this case were both accompanied by changes in faculties' ways of thinking and embraced by non-accounting personnel. The deans reported that significant headway had been made in getting faculties to think in a more business like fashion, and the corroborative interviews generally indicate that faculties view the changes made, as well as general financial management of the university, positively, The changes are accepted as appropriate and sensible, and the Finance Department has grown in credibility.

The new ways of thinking that emerged enabled management accounting practices to be introduced that would not have been accepted previously. The catalytic effect of the discussions regarding ROA presents a clear example of the direct relationship between new ways of thinking and management accounting change. The discussions prompted a growing appreciation for the implications of resource consumption and the role of each faculty in that, and opened faculties to accepting the need for faculties to contribute towards central overheads, Consequently, overhead taxes could be introduced into measuring faculty profitability, a change that one year earlier had been considered unimplementable. The effect that discussions regarding ROA had on paving the way for the acceptance of overhead allocation was not deliberate. The Finance Department had not planned the ROA discussions as a stepping stone to implementing overhead taxes, and yet the consequence of the change in thinking that occurred through discussion was catalytic and resulted in the introduction and acceptance of formal changes in management accounting practices.

The events that occurred in this case match the pattern suggested by Proposition IN5, that the changes that were successfully made to the formal management accounting practices of the university were accompanied by informal change and new ways of thinking and were embraced by non-accounting personnel.

5.2.2 Evolutionary and Revolutionary Change

The university's actions and decisions were clearly shaped by the institutions that existed at the time. This is consistent with Scapens' (2000) contention that institutions "always exist prior to any attempt by the actors to introduce change" and that "the process of change is shaped by prevailing institutions". University management employed strategies that were largely in keeping with the faculties' way of thinking.

University management also phrased initiatives in such a way as to better fit the institutions in place in order to facilitate acceptance by faculties. For example, overhead allocation was described as a series of taxes, as opposed to referring to allocation bases or charges. This had the effect of shaping the allocation more along evolutionary, rather than revolutionary lines. The "keep-your-surplus" incentive that allowed faculties the freedom to use their improvement against budget as they chose was very well received by faculties. The initiative fitted well and was a natural extension of the devolved control structures instituted several years previously. The increased financial responsibility had the result of reinforcing the level of responsibility at faculty level and one interviewee commented that devolution started working more effectively at this time. Many interviews referred to the start of devolved decision making being around 1998/9, when in fact it was instituted several years earlier. The practice of moulding changes to fit in with existing ways of thinking in order to gain acceptance of that change supports Scapens' (2000) suggestion that successfully introducing changes that do not challenge existing institutions is likely to be much easier than change which conflicts with existing ways of thinking.

Notwithstanding the above, what is of particular interest in this case is that the changes needed to reverse the university's financial situation were, in fact, revolutionary. Requiring faculties to accept financial accountability, and manage their operations with due regard for financial resources, and accept responsibility for generating adequate resources was identified as the critical issue in order to achieve financial recovery. This change was the antithesis of the prevailing institutions, yet it was made successfully. There are two aspects in the interaction between management accounting change and ways of thinking that seem to account for this success. Firstly, as described above, management shaped and communicated changes in the way that would best fit with prevailing institutions. Secondly, as the measures put in place proved to be successful, the ways of thinking about the role of finance in faculties changed, allowing further changes to be made in management accounting practices (described in 5.2.1). Essentially, revolutionary change was achieved through a series of evolutionary changes, as ways of thinking responded to the changes that were instituted and vice versa.

Further, one of the first changes made was to hold faculties accountable for their own financial management, which overcame very strongly entrenched views about the role of faculties. This followed shortly after new deans were appointed to the system of devolved control instituted several years earlier, but by all accounts not understood or taken advantage of, at that stage. It could be argued that the financial management of faculties was an evolutionary step from devolution, except that devolution was not well understood at that stage, and a well entrenched institution had to be overcome to achieve this.

The relationship between change and prevailing institutions is more complex than as expressed in theoretical proposition IN3 (that prevaining institutions prevented potential changes that were not in line with the existing institutions from being made) and the second part of theoretical proposition IN6 (that the changes instituted would be evolutionary, rather than evolutionary, in nature). This expression of the relationship between change and prevailing institutions is too absolute. The propositions relationship would be better expressed in terms of the extent and discourse: that prevailing institutions and language with which the change is described would influence the extent to which revolutionary change is achieved in a single instance.

5.2.3 Progressive and Regressive Change

In this case an interesting balance between progressive and regressive change was achieved. Progressive change, based on arguments of economic rationality (such as holding faculties responsible for additional costs), had the potential to challenge the existing power relationships between faculty and university management, as faculties would be held accountable to university management for a greater variety of costs and behaviours than previously, placing further restrictions on faculties' devolved authorities. However, the changes introduced not only held faculties accountable for a greater number of factors, but also provided them with the potential to achieve a greater level of freedom than previously experienced. The introduction of measures such as retaining improvements against budget and earning 70% of fee income allowed faculties greater flexibility as they had autonomy over student numbers and fees and freedom to use the surplus earned as they saw fit, subject to a few minor restrictions.

While the changes that occurred preserved the existing power relationship between faculties and management, the changes cannot be regarded as being principally regressive and aimed at entrenching existing power structures. There is evidence of instrumental behaviour whereby the process of change sought to enhance relationships through effective discussions, and aligning management accounting practices with the devolved decision making structure of the organisation. Financial changes happened together with devolution of control. The organisational structure matched fiscal responsibility. Evidence from the interviews was that the executive dean structure had an influence on getting the deans to accept responsibility.

A number of interviewees suggest that devolved decision making became more effective after the management accounting changes were introduced, implying that the increased financial responsibility underscored the decision making authority invested in the office of dean.

5.2.4 Conclusion

It is clear from the results of the case that the prevailing institutions affected the shape of the management accounting changes that were made (Theoretical Proposition 2). However, proposition 3 (prevailing institutions prevented potential changes that were not in line with the existing institutions from being made) is too simplistic a representation.

The problem here is that it is drawn from the dichotomies which suggest that changes not in line with existing ways of thinking would be rejected. The propositions are useful for posing questions to understand the process of management accounting change, but do not consider the relationship between institution and change fully. In this case *ideas* that were revolutionary (e.g. the need for faculties to contribute financially towards central overheads) were shaped as *evolutionary* (e.g. system of taxes was seen as paying a fair price for a service for which they could demand adequate service levels, which made the administrative processes, previously viewed as overly managerialist, answerable to faculties).

The reason for the success of the management accounting changes had here in changing faculties' mindsets and behaviours, was the result of getting revolutionary ideas accepted by shaping the change in a way that was not only consistent with, but in fact supported ways of thinking that were valued by the organisation. Essentially this resulted in two changes being made simultaneously, and a revolutionary change (financial responsibility) slipped in alongside an evolutionary change that supported institutions valued by the organisation (keep your surplus and use to further academic endeavour which otherwise there would not have been budget for).

The dichotomies do not distinguish between what the change is, and how it is shaped. The three dichotomies are able to identify considerations that can lead to change being explained, but do not provide a full explanation for the change that occurred. Proposition 5 is partially matched, but needs to be revised to separate the idea behind the change from the shape it takes.

Proposition 3 stated that prevailing institutions would prevent potential changes that were not in line with the existing institutions from being made. This is not consistent with the findings of the case, which describes revolutionary change being ultimately achieved through as series of changes that were partially revolutionary and partially evolutionary in nature (section 5.2.2). Prevailing institutions and the degree to which the change was shaped (the discourse of the change) influenced the extent to which revolutionary change is could be achieved in a single instance. It is proposed instead of institutions playing a blocking role in terms of what management accounting changes can be introduced, they play a moulding role regarding how management accounting change is shaped, and the extent to which changes are made, but do not necessarily block the desired change, itself.

It is consequently suggested that management can affect the success of management accounting practices achieving their desired objective by managing the interaction between institutions and management accounting change, and artful consideration of the discourse of the change.

5.3 Economic rationality

This section considers the main points of speculation in the interpretation of the ABC paradox from a neo-classical economic perspective (as discussed and summarised in three theoretical propositions in Section 3.1.5). The propositions relating to the non-consideration of ABC (technical considerations) are:

- TE1 ABC was not considered to be more economically efficient than the solution effected;
- TE2 None of the contextual factors identified in the ABC literature were important considerations in designing the changes that were made; and
- TE3 An ABC solution would have been regarded as a practical impossibility, and accurate allocations could not be achieved.

The rival propositions relating to the relationship between institutional influences and economic rationality are:

- RH1 Prevailing institutions blocked economically efficient alternatives from consideration; or
- RH2 Prevailing institutions had embedded technical logic and were consistent with the economically efficient alternative(s); or
- RH3 Prevailing institutions were overcome by economic efficiency.

Section 5.3.1. considers the technical considerations relating to ABC that emerged from the case. Section 5.3.2. considers the relationship between technical considerations and institutional influenced that was evident in the case, and section 5.3.3 concludes on whether the propositions are matched by the facts of the case.

5.3.1.Technical considerations

There is no suggestion in this case that the non-adoption of ABC was irrational from an economic perspective in any way. The university's objective was to temper use of resources by enhancing awareness thereof. Management was of the view that while ABC might offer highly detailed, and potentially more accurate cost information, this higher level of detail or accuracy was not needed to achieve their objective. As the intention was to focus faculties on managing resources efficiently, it did not matter exactly how much faculties were charged per unit of resource, only that they were charged relative to use, as that is what provided the incentive to be efficient.

University management believed the costs of operating an ABC system would outweigh any benefit of increased accuracy, which was considered negligible. Further, university management was unsure that the existing systems would be able to provide sufficiently accurate data, although this problem was not regarded as an insurmountable obstacle to ABC. However, there was another obstacle that management did consider insurmountable. The university had recently completed a lengthy and costly process re-engineering; "wasting" further scarce resources in time and money to interact with yet more consultants would likely have amounted to political suicide.

The CFO did not regard the circumstances described in this case as a situation where a particular technique stood out on technical merit. The main reason for this is that he does not regard management accounting techniques as rigid and inflexible, but rather views the discipline as being about principles and objectives which can be nuanced to get the job done. A number of techniques may provide similar benefits, the value is in how it is manipulated and applied.

This raises the question of whether the untraditional measures had technical merit, or whether coupling taxes and resource utilisation was too loose to be effective. The numerical information gathered and presented in Appendices 6 - 12 cannot be relied on for insight in this regard, as there is evidence that suggests the underlying data may be either incorrect or differently classified from year to year. However, there was sufficient evidence in the interviews to conclude that the overhead taxes did affect faculties' decision making, and encourage the more efficient use of resources (e.g. space, Section 4.2.2 Institution #6).

Management was not specifically concerned about whether the taxes can be shown to have had technical merit or not. Management's view was that the overall outcome was good and their objective of improving the financial performance was achieved. Collectively the measures introduced were working. There was no benefit to pulling apart and analyzing the individual elements, and so had not done so. Isolating the effects of each measure was likely to be impossible, given the inter-relationships that existed. The changes together achieved a balance that worked.

5.3.2. Irrationality of ignoring institutions in decision making

In contrast to this approach, the case does provide firm evidence of the ineffective functioning of systems and initiatives where these are not in line with accepted ways of thinking of the organisation, such as mistrust in leadership resulting from a leadership style, and disastrously ineffective attempts at financial management. The study also provides evidence of the development of a relationship of trust between faculties and university management, and a strong improvement in financial management, where initiatives were more closely aligned with the deeply entrenched ways of thinking within the university.

This suggests that being cognisant of existing ways of thinking, and allowing these to influence decision making in identifying solutions that will have the support of those that will be responsible for implementing that decision in the organisation, is highly rational. This argument is consistent with that put forward by Lounsbury (2008) earlier in this study (section 3.2.2), as to why maintaining a distinction between technical forces, and institutional forces is flawed. If the social structures are real then they should be considered.

This case study presents evidence of the existence and operation of these unseen social structures, and the consequences thereof on the effective functioning of management control systems. In doing so, it not only supports the case for the rationality of considering institutional forces in decision making, but also argues the irrationality of ignoring institutional factors in decision making and potential for sub-optimum solutions as a result thereof.

5.3.3 Conclusion on the theoretical propositions

The first two propositions, TE1 (that ABC was not considered to be more economically efficient than the solution effected) and TE2 (That none of the contextual factors identified in the ABC literature were important considerations in designing the changes that were made) are matched by the facts of the case, which implies that at a technical level the decision to not adopt ABC was consistent with economical rationality. ABC was not regarded as a more effective means to achieving the organisations financial goals than another method, as a high degree of accuracy was not required in assigning costs. The concept of managing costs through encouraging management of the cost driver was sufficient for the problem presented. This concept is not unique to ABC, although it is perhaps most thoroughly expressed in that context. Continuing from this perspective, contextual factors were not of particular importance in distinguishing between the need for ABC or another technique, as the contextual factors could be answered by more than one approach to the problem (i.e. ABC was not unique in the critical aspects that it offered towards a solution, namely identifying and managing cost drivers).

Whether the third (TE3) was matched by the circumstances of the case was a mute point, with the Finance Department adamant that they could have achieved a sufficient level of accuracy if they had determined that ABC was the best approach to follow, and the corroborative interviews indicating mistrust in the systems at that time.

This relationship between technical considerations and institutional influences described in this case does not match any of the three rival hypotheses. Prevailing institutions did not block economically efficient alternatives from consideration (RH1 is not matched); nor were institutions demonstrated as having embedded technical logic and was consistent with the economically efficient alternative(s) (RH2); nor were prevailing institutions were overcome by economic efficiency (RH3).

The relationship between rational choice and institutional influences in this case is concluded as being the following: Economic efficiency was considered in determining an appropriate objective and the nature of the change, while prevailing institutions influenced the shape of the changes.

5.4 Conclusion: Changing institutions and instituting management accounting practices contrary to existing ways of thinking

The case supports the argument that institutions are socially constructed, and can change in response to changes in the organisation's management accounting practices. This is an important perspective offered by the study. Institutional theory argues that the adoption and design of management accounting practices are influenced by the ways of thinking (institutions) that existed within the organisation, and attempts to institute new management accounting practices within an organisation are less likely to be successful, if they are not consistent with the existing ways of thinking. It follows then, that management may wish to change the ways of thinking within an organisation, in order to improve the likelihood of new management accounting practices being accepted in their organisation, where the changes are seen to be in conflict with the existing ways of thinking. This case presents evidence that such an approach is possible.

In this case study it is apparent that the management accounting changes that the Finance Department wished to introduce were in conflict with the existing ways of thinking. It is also clear that during the period under review faculties moved to a position where they assumed a high degree of financial responsibility, and there is evidence that all deans interviewed have, during the course of their deanship, paid attention to their faculties bottom line (ROT), actively pursuing revenue generation, being sensitive to resource utilisation and are very aware of financial constraints and how university finances are managed. The descriptive section of the case study details the various steps taken by the Finance Department in achieving a comprehensive ROT that included not only the direct costs of the faculties, but also indirect costs incurred as a result of using centrally managed university resources. The case study reports that the Finance Department deliberately instituted change incrementally, when they thought it would be accepted, and were exceptionally careful regarding how the changes were described and communicated, in order to explain the change in the way that it fitted as best as possible with what faculties would consider to be appropriate for a university. Further, the Finance Department is reported to have done a lot of work preparing the ground before instituting changes. These actions present a picture of a Finance Department slowly changing the ways of thinking of the organisation, until such time as a comprehensive level of financial accountability was reached.

These insights challenge a number of the theoretical propositions that were drawn from the literature, in particular the idea that institutions necessarily block economically efficient options from consideration where the two are in opposition.

The case also provide insights into the interaction between economic considerations and institutional influences in the selection and shaping of management accounting practices, with the result that all three rival hypothesis drawn from speculations in the literature are rejected. Instead, it was the observation in this case that economic efficiency was considered in determining an appropriate objective and the nature of the change, while prevailing institutions influenced the shape of the changes.

A summary of the conclusions drawn regarding whether or not the theoretical propositions were matched by the facts of the case is presented in table 3.

Table 3: Summary of conclusions on theoretical propositions

Theoretical Propositions		Matched to case
Propositions relating to the influence of the institutions:		
IN1	Ways of thought or action of some prevalence and permanence were embedded in the habits or customs of a group, or groups, of people existed within the university;	Yes
IN2	These affected the shape of the management accounting changes that were made;	Yes
IN3	Prevailing institutions prevented potential changes that were not in line with the existing institutions from being made;	No
IN4	Institutions that were newer, and less removed from their origins were more easily overcome (where necessary), while more widely spread and deeply embedded institutions were not overcome;	Yes
Propositions relating to the process of change as informed by the dichotomies:		
IN5	The changes that were successfully made to the formal management accounting practices of the university were accompanied by informal change and new ways of thinking and embracement of the changes by non-accounting personnel;	Yes
IN6	ABC would have represented a revolutionary change to the organisation, and the changes that were instituted were evolutionary in nature.	Partially Yes
IN7	The management accounting changes sought to preserve existing power structures, although economic necessity allowed existing institutions to be challenged and progressive change to occur.	Yes
Propositions relating to the non-consideration of ABC:		
TE1	ABC was not considered to be a more economically efficient than the solution effected;	Yes
TE2	None of the technical considerations identified in the ABC literature were important considerations in designing the changes that were made;	Yes
TE3	An ABC solution would have been regarded as a practical impossibility, and accurate allocations could not be achieved;	Not clear
Rival propositions relating to the relationship between institutional influences and economic rationality:		
RH1	Prevailing institutions blocked economically efficient alternatives from consideration; or	No
RH2	Prevailing institutions had embedded technical logic and were consistent with the economically efficient alternative(s); or	No
RH3	Prevailing institutions were overcome by economic efficiency; or	No

CHAPTER 6
CONCLUSIONS, LIMITATIONS & FUTURE RESEARCH

This research had two objectives:

1. to test the ability of Burns & Scapens' Institutional Framework to explain change in management accounting practice; and
2. to contribute towards the gap in the literature by offering a case study that applies the framework to investigate the process of change in management accounting practice.

This case demonstrates the influence of institutions on understanding the process of management accounting change. It supports the argument put forward in the literature that contradictory and inconclusive evidence from the literature on ABC may be the result of the little investigated influence of institutional factors. Consequently, apparent failures or low adoption rates of management accounting techniques cannot be interpreted as a deficiency in the technique itself. This case suggests that institutional factors may constrain an organisation in its ability to successfully adopt management accounting initiatives. It also suggests that management accounting practices that are out of line with the existing institutions are unlikely to be readily adopted by an organisation. The case does however support the argument that institutions are socially constructed, and can change in response to changes in the organisation's management accounting practices.

The interpretation of the ABC literature through the Burns-Scapens framework was preliminary, but sufficient (for the purposes of this study) to show that the framework has potential to explain diversity in literature.

The analysis supports Burns & Scapens (2000) argument that an institutional framework is helpful in understanding the process of management accounting change, although it finds some aspects of the framework to be inconsistent with the empirical evidence in the case.

Institutional practices do not necessarily reject logic. In this case the technical considerations were applied to determine what changes needed to be made, while institutional forces determined how those changes were shaped. The interaction between neoclassic economic rational and institutional factors are argued here as resulting in more effective measures than would be achieved by ignoring institutional forces. This is as much of financial management is concerned with influencing people's behaviour, understanding what drives people's behaviour and how they will respond, is inextricably linked to achieving the desired economic goal. At the least, it is not the changes that are made to management accounting practices that are irrational, but rather a rational response to irrational behaviour of people tasked with managing an organisation.

The case also provides useful insights for management, in creating visibility of the role that institutions can play in the process of management accounting changes. It argues that management can improve the success of accounting change by giving due consideration to the institutional context of that change, anticipating challenges that may exist and enacting change accordingly. Institutions need to be managed just as much as any other tangible organisational structure.

The main learning offered by this study relates to understanding the living relationship between ways of thinking within an organisation, and change in management accounting practices. This case demonstrates that consistency and deliberate interaction with existing institutions contributed to the successful change in financial policies and management accounting practices, and lead to a change in mindset and actions of faculties regarding the financial accountability. This suggests that institutions can be both an impediment and a tool to management in their attempts to institute change in management accounting practices. It also demonstrates that through this process, management accounting practices are uniquely tailored to the organisation concerned, supporting the legitimacy of the claim that institutional theory offers potential for further understanding the diversity found in management accounting practice, and the apparent contradiction and inconsistencies found in management accounting literature.

6.1 Future research

It was not the objective of this study to investigate how the ways of thinking that existed within the institution came about, or whether or how change in these institutions was brought about during the period under study. It was also not the objective of this case study to investigate whether the changes in management accounting practices lead to a change in the mindset of faculties regarding financial responsibility, or not.

However, the events reported on in this study suggest all of the above – that the Finance Department successfully brought about, over a period of time, a change in firmly entrenched ways of thinking that were impediments to the changes in management accounting practices that they believed to be necessary to achieve the kind of financial management required in order to achieve financial recovery of the university.

This observation implies that management can improve the likelihood of a change in management accounting practice occurring successfully within an organisation, by preceding that change with an alteration in the existing ways of thinking in that organisation, to be consistent with the impending change by the time that change is introduced. It also implies that changes in management accounting practices can themselves lead to a change in the ways of thinking and doing in an organisation. The obvious question of interest arising from this study is “were the changes that were introduced successful in changing faculties’ ways of thinking about finance, so that they operate in a manner sensitive to economic considerations?” During the course of the interviews there were strong indications that the faculties’ way of thinking had been changed so thoroughly that faculties were voluntarily and proactively seeking out opportunities to improve their financial performance. The evidence that arose during the course of the interviews that is relevant to this question is included in Appendix 13, and this presents a direction for further research.

A related question is whether the changes in management accounting practices drove the improvement in the financial position of the university, by effecting change in the ways of thinking and doing within the university. While the interviewees are unanimous in that they believe the changes that were made to be extremely successful in turning the financial situation of the university around, only a limited amount of substantiating evidence arose during the course of the interviews. This was not pursued as it was not the focus of the study. Relevant information is also included in Appendix 13 and this presents another direction for further research.

Consequently, venues for further research suggested by this study are as follows:

- Further cases need to be studied to corroborate or refute the findings of this case. Deeper investigation is necessary to develop these insights.
- Further case study of the influence of institutions on management accounting change is required. No other case studies could be found in the literature that described how awareness of institutions affected changes made to management accounting practices. This case is unique in that regard, and further case study is required to test the conclusions reached in this case study, and extend the relevance thereof to other organisations.
- Further investigation into the articulation between power relationships and the Institutional Framework in understanding management accounting change;
- Further case studies investigating whether the likelihood of a change in management accounting practice occurring successfully within an organisation can be improved by preceding that change with an alteration in the existing ways of thinking in that organisation, to align the ways of thinking within the organisation with the intended change;
- Further cases need to be studied in order to confirm or deny the preliminary findings of the re-interpretation of the ABC literature through the Burns-Scapens framework;
- Further investigation of how the ways of thinking reported in this study came about, and whether (and how) changes in these institutions were brought about during the period under study; and

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APPENDIX 1

Case Studies: Purpose for which ABC used and satisfaction with the technique

	Study	Research type:	Year	Country	Method	Measurement of Benefit	Cost reduction / cost management	Product / Service costing	Pricing	Performance measurement	Cost modeling	Budgeting	Customer profitability analysis	New product design	Transparency of resource allocation	Value based management	Decision making	Regulation	Not specified	Accuracy
Manufacturing	Anderson	Academic	1995	US	Case study of General Motors from 1986 - 1993	Management Perception: Author's perception:		I N			I N			I N			I N			Perceived n/a
	Sohal et al	Academic	1998	Australia & China	Case study of 2 manufacturers	Management Perception, Use	I	S	S	I		I	I				S			
	Gunasekaran et al	Academic	1999	Belgium & Netherlands	Case study of 4 manufacturers	Management Perception		S/N									S/N			Perceived
	Brewer et al	Academic	2003	US	Case study of 1 manufacturer	Management Evaluation & Employee Evaluation, improved profitability		M	M	N							M			
	Needy et al	Academic	2003	US	Case study of 4 small manufacturers	Improved Information		I	I				I							n/a
Corporate Services	Kullven et al	Academic	1993	Sweden	Case study of 1 mobile telephone services company	Authors' perception		I			I						I			n/a
	Hart & Smith	Academic	1998	Australia	Case study of 1 regional bank								I							n/a
	Goldsby & Closs	Academic	1999	US	Case study investigation across 1 logistics supply chain	Cost reduction; Use	S										S			n/a
	Hussain & Gunasekaran	Academic	2001	Europe	Financial Services					M										n/a
	Major et al	Academic	2003	Portugal	Case study of an ABC system at 1 Telecommunications firm	Observation; Use	N		S						S			S		No!
	Searcy	Consultant	2004	US	Case study of 1 employment services company	Improved Information		I	I				I							n/a
	Neumann et al	Consultant	2004	Not disclosed	Case study of 1 IT services division of an international software development company	Management's perception	S	I		N					S					Perceived
Public Services	Aird	Consultant	1996	UK	Healthcare	Cost reduction; Use	S				S									n/a
	Vann	Consultant	1997	US	Case study of US Dept of Defense	Cost reduction; Use	S	S		M										n/a
	Fabian	Consultant	1998	US	Case study of 5 government agencies that have implemented ABC	Cost reduction; Use	S		S								S	S		n/a
	ABC Technologies	Consultant	1998	US	Case study of an energy delivery division of an electricity supplier	Cost reduction	S													n/a
	La Grange	Consultant	1999	US	Case study of US Directorate of Logistics	Cost reduction	S													n/a
	Grandlich	Consultant	2004	US	Healthcare case study of 1 hospital	Cost reduction; Use	M	M		M										n/a
	Heaney, M	Consultant	2004	UK	Case study of 1 ABC system at Oxford University Library Services	Management perception	S				S				S					n/a
Not specified	Cokins	Consultant	1998	US	Not specified	Not specified				S										n/a
	Cokins	Consultant	1999(b)	US	Not specified	Not specified							S							n/a
	Colsen	Consultant	2002	US	Not specified	Not specified	S			S										n/a

Key:

S = significant benefit with the ABC system

M = some benefit, extent unclear

N = no benefit

I = no claim of improved economic benefit, but management values the improved cost information

APPENDIX 2
Surveys of ABC users: Purpose for which ABC used and satisfaction with the technique

Author	Year	Country	Method	Use/ Success	Cost reduction / Cost management	Product / Service costing	Pricing	Performance measurement	Cost modeling	Budgeting	Customer Profitability Analysis	New prod design	Relationship (justification)	Value Based Management	Overall / General
Innes	1995	UK	Postal survey of 439 to The Times 1000 (ie UK's largest companies)	Use	89%	25%	69%	61%	62%	57%	51%	35%			
				Success	3.8		3.8	3.7	3.7	3.7	3.9	3.8			
Shields	1995		Survey of 143 firms that had implemented ABC	Use		35%		2%							
				Success**	75% of firms indicated a wide variation in success, on avg "moderate". 25% indicated none										3.1071
Swenson	1995	Not specified	Telephone survey of 50 individuals at 25 firms	Use		24%	72%	28%			36%	48%			
				Success *	3.8	3.9	3.3								
McGowan and Klammer	1997	US	Survey and case study of 4 large companies, 1 mail order retailer, 2 manufacturers, 1 service company	Use											
				Success											3.93
Foster and Swenson	1997	US	Survey of 166 ABC users at 132 companies. Field visits to 15 sites.	Use											
				Success											2.8-3.5
Chennhall & Langfield Smith	1998	Austrailia	78 large manf co.s or SBU's surveyed	Use											56%
				Success											3.2
Nair	2000	US	ABC Technologies Customer survey at annual user conference (552 responses)	Use	51%	58%		49%						18%	
				Success											
Innes	2000	UK	Postal survey of 209 to The Times 1000 (ie UK's largest companies)	Use	90.3%	16.0%	80.6%	74.2%	64.5%	54.8%	51.6%	41.9%			
				Success	4		4.1	3.9	4	3.9	4.2	3.8			
Pohlen & La Londe	1994	US	Survey 22 logistics organisations	Use	23.0%	59.0%	47.0%	41.0%							
				Success											
Kidwell et al	2002	US, UK, Canada	Survey of 403 government municipalities: 140 US, 105 UK & 157 Canada	Use											
				Success: US											4.02
				Success: UK											3.8
				Success: Canada											4.15
Wawaru + Ulliana	2005	South Africa	Survey and case study of 5 large retailers	Use											0.4
				Success											1 of 2
Colsen	2005		Survey and Case	Use											
				Success	4.3	4.3	3.6	3.9		4	3	3	3		

* = scale of 1 - 4 originally used; Converted to 1 - 5 for ease of comparability to other studies
** = scale of 1 - 7 originally used; Converted to 1 - 5 for ease of comparability to other studies

The success rating is based on a 5 point scale - 1 being the lowest level of satisfaction and 5 being the highest

APPENDIX 3
ABC Adoption Surveys

				Corporate							*Non-Corporate*				
					Non-manufacturing										
Study	**Year**	**Country**	**Details**	Manufacturing	Consulting and other services	Retail	Financial Services	Not Specified	Total Non-Manufacturing	**Total Corporate**	Municipality	Army	Health Care	University	**Total Non-Corporate**
SURVEYS (% ABC users in population surveyed)															
Drury et al	1993	UK	Survey of 303 manufacturing firms - Smaller business units - larger business units	4% 0% 7%											
Pohlen et al	1994	US	Survey 22 logistics organisations							**54%**					
Australian Soc of CPA's (reported by Sohal, 1998)	1995	Australia	213 Australian manufacturers surveyed	12%											
Innes	1995	UK	Postal survey of 439 to The Times 1000 (ie UK's largest companies)	16%			54%		22%	**21%**					
US IMA (reported by Sohal, 1998)	1996	US	Not disclosed							**41%**					
Chennhall et al	1998	Austrailia	78 large manufacturing companies or strategic business units surveyed as regards of use of management accounting techniques, including ABC	56% N1											
et al	1999	US Canada UK											51% 55% 30%		
Innes et al	2000	UK	Postal survey of 209 to The Times 1000 (ie UK's largest companies)	14%			41%	12%		**18%**					
Askarany et al	2000	Austrailia	69 manufacturers in the plastic industry surveyed as regards of use of innovative management accounting techniques, including ABC	14%											
Kennedy et al	2001	UK	47 ABC adopters + equivalent control group, LSE							**20%**					
Hussain et al	2001	Europe	Various				33%								
Kidwell et al	2002	US UK Canada	Survey of 403 government municipalities: 140 US, 105 UK & 157 Canada								48% 29% 54%				
Wawaru et al	2004	South Africa	Survey and case study of 5 large retailers			40%									
Cohen	2005	Greece		36%		31%		65%		**41%**					
Wawaru et al	2005	South Africa	Survey of 52 listed companies							**32%**					
CLASSIFICATION OF CASES (Number of ABC user organisations included in APPENDIX 1)															
APPENDIX 1				11	5		2		7	**25**	5	2	2	1	10

APPENDIX 4
Surveys: Factors affecting ABC adoption

Study	Year	Country	Method	Measure of Success	*Organisational Factors*						*Contextual Factors*						*Change Management Factors*											*External*					*Various*						
					Centralisation	Org Size	Incentivisation linked	Vertical depth	Formalised Job Procedures	Complexity	Potential For cost reduction	Decsiion Usefulness	Need for change	Diversity in Products	Strong Quality of I/S technology	Continuous Improvement / TQM	Top Management Support	Champion or Team Commitment	Employee resistance	Resource Adequacy or lack of skills	Clear Objectives	Implementation Training	User involement/Ownership	Non-accounting ownership	Culture	Capacity tolearn (Familiarity)	Fit with existing stystems /practices	Competition	Technology	Change in cost structure	Financial performance under pressure	Urgency / Priorities	Lack of confidence in the ABC	Limited benefit	Inadequacy of existing systems not significant	OH% of total costs	Uncertainty of benefit	COST	Prospector Style Culture
General Management Accounting change studies																																							
Libby et al	1996	Canada	Survey of 24 medium sized Mfg Firms		x					x																	+	+											
Chenhall et al	1998	Austrailia	Survey of 78 Mfg Firms	Mgt Evaluation		+														+								+											
Askarany et al	2000	Austrailia	Survey of 69 mfg firms in the plastics industry												-				-						+	+						+	-	-	-			+	
Kidwell et al	2002	US	Survey of 403 government municipalities: 140 US, 105 UK & 157 Canada																-	-																			
		UK																																				-	
		Canada																	-	-																			
Wawaru et al	2004	South Africa	Case study of 5 large retailers	Management satisfaction w.r.t. support of decision making	-	+																						x	x										
ABC specific studies																																							
Drury et al	1993	UK	Survey of approx 300 manufacturing firms			+								x														x								x			
Pohlen et al	1994	US	Survey 22 logistics organisations	Usage							-																												
Anderson	1995	US	Field study of 1 company	Stage attained								+																+	+										
Shields et al	1995	UK	Survey of 143 firms that had implemented ABC	Mgt Evaluation & US$ improvement			+										+			+		+							x										
Innes et al	1995	UK	Survey of 251 UK firms (Manufacturing & Non-Mfg)	Stage attained		+										+	+																						
Australian Soc of CPA's (reported by Sohal, 1998)	1995	Australia	213 Australian manufacturers surveyed	Adoption																														-			-	-	
Gosselin	1997	Canada	Mail survey of 161 Canadian Mfg SBU's	Stage attained	+			+	+																														+
Foster & Swenson	1997	US	Survey of 166 ABC users at 132 companies. Field visits to 15 sites.	Usage, decisions, US$ improvement and Mgt Evaluation			+						+				+	+		+					+														
Megower et al	1997	US	Survey of 53 employees from 4 sites (3 manufacturing, 1 service)	Employee satisfaction			+										+			+	+		+																
Krumwiede	1998	US	Survey of 225 US Manufacturing SBU's	Adoption							+	x		-		x																						+	
				Implementation							x	x					+																					x	
				Operation							+	+		+							+			-															
Chenhall et al	1998	Austrailia	Survey of 78 Manufacturers	Mgt Evaluation	+															+																			
Anderson et al	1999	US	Case study of 21 ABC projects at 2 US Auto manufacturers	Mgt Evaluation & perceived benefits			+						+		+			+		+																			
Innes et al	2000	UK	Survey of 352 companies	Mgt Evaluation																																			
Major and Hopper	2003	Portugual	Case study of 1 ABC system at a Telecommunications firm	Mgt Evaluation & independent assessment		+				+			+	+			+		-					-				+			+	+							
Brewer, et al	2003	US	Case study of 1 ABC system at a manufacturing firm in the electronics industry	Mgt Evaluation & employee evaluation		+				+	+	+	+	+				+					+	-				+			+	+							
Heaney, M	2004	UK	Case study of 1 ABC system at Oxford University Library Services	Mgt Evaluation		+				+	+																												

Key:

+ = Statistically significant positive relationship (Statistical studies) or Factor supporting ABC adoption (descriptive sudies)

- = Statistically significant negative relationship (Statistical studies) or Factor contributing against ABC adoption (descriptive sudies)

x = Factor investigated but no relationship found

APPENDIX 5: Recurrent Unrestricted Council Controlled Operations

	2006	2005	2004	2003	2002	2001	2000
	R'm	*R'm*	*R'm*	*R'm*	*R'm*	*R'm*	*R'm*
Recurrent income	1083	992	954	869	772	696	602
State appropriations-subsidies & grants	570	513	496	460	427	395	352
Tuition and other fee income	401	364	330	290	241	213	185
Sales of goods & services	106	97	102	91	88	75	61
Private gifts & grants	6	18	26	28	16	13	4
Recurrent expenditure	1078	1013	931	837	760	691	681
Personnel	681	644	574	511	452	430	397
Other operating expenses	342	290	287	253	240	206	210
Bursaries	40	41	40	33	33	30	24
Minor capital items expensed	15	38	30	18	20	5	19
Depreciation	22	22	15	22	15	20	31
Recurrent Operating Surplus / (Deficit)	5	-21	23	32	12	5	-79

Source:
Annual Financial Review for the Year Ended 31 December 2006
Report of the Chair of the Finance Committee and the Executive Director Finance

APPENDIX 6: Space to Staff ratios per faculty (m^2 per staff member)

	Commerce	EBE	Humanities	Law	Science
2006	72.9	241.5	111.7	83.5	225.0
2005	72.0	239.1	114.1	86.7	235.6
2004	83.7	241.5	116.7	89.4	243.8
2003	Not available[21]				
2002	Not available				
2001	39.9	181.4	101.7	32.3	209.2
2000	29.7	199.1	97.5	36.8	192.7

[21] Actual space utilisation for 2002 and 2003 was not available.

APPENDIX 7a: Space / Students (Not-weighted) ratios Space to Student ratios per faculty (m2 per student)

	Commerce	EBE	Humanities	Law	Science
2007	1.3	6.2	3.9	3.7	14.7
2006	1.2	6.5	4.0	3.2	13.9
2005	1.2	6.9	3.9	3.3	14.3
2004	1.1	7.6	3.9	3.1	14.6
2003	Not available	Not available	Not available	Not available	Not available
2002	Not available	Not available	Not available	Not available	Not available
2001	0.8	7.1	4.4	1.6	16.8
2000	0.6	7.3	4.5	1.6	17.5
1999	1.0	7.2	4.4	1.6	20.4

APPENDIX 7b: Space / Students (Weighted) ratios Space to Student ratios per faculty (m^2 per student)

	Commerce	EBE	Humanities	Law	Science
2006	1.2	7.2	4.2	1.7	9.2
2005	1.1	7.5	4.0	1.7	9.4
2004	1.2	8.2	3.9	1.8	9.5
2003	Not available	Not available	Not available	Not available	Not available
2002	Not available	Not available	Not available	Not available	Not available
2001	0.8	7.3	4.3	0.7	10.5
2000	0.6	7.2	4.5	0.7	10.5

APPENDIX 8: Staff headcount per faculty

	Commerce	EBE	Humanities	Law	Science
2006	87	91	199	37	162
2005	89	94	200	39	160
2004	76	93	198	38	155
2003	82	90	198	34	155
2002	77	85	181	29	152
2001	95	101	209	41	169
2000	89	93	218	36	173

APPENDIX 9: Full-time equivalent (FTE) student to full-time academic staff ratios

	Commerce	EBE	Humanities	Law	Science
2006	61.8	33.7	26.5	49.5	24.5
2005	64.0	31.7	28.9	50.3	25.0
2004	71.1	29.6	30.2	51.1	25.7
2003	62.8	28.1	30.7	59.9	25.2
2002	64.4	29.2	31.7	65.4	24.1
2001	49.6	24.9	23.8	48.3	19.9
2000	48.9	27.8	21.9	49.5	18.3

APPENDIX 10: Percentage change in full-time equivalent (FTE) student to full-time academic staff ratios

	Commerce	EBE	Humanities	Law	Science
2006	-3.5%	6.4%	-8.2%	-1.5%	-1.9%
2005	-10.0%	7.0%	-4.3%	-1.6%	-2.7%
2004	13.2%	5.1%	-1.8%	-14.7%	2.0%
2003	-2.5%	-3.5%	-3.1%	-8.5%	4.5%
2002	**30.0%**	**17.0%**	**33.1%**	**35.3%**	**20.9%**
2001	1.3%	-10.2%	8.9%	-2.3%	9.0%

APPENDIX 11: Student per faculty (Not weighted)

	Commerce	EBE	Humanities	Law	Science
2007	5221	3526	5719	828	2489
2006	5359	3365	5561	969	2618
2005	5521	3276	5801	1027	2629
2004	5542	2969	5925	1092	2584
2003	5183	2809	5616	904	2476
2002	4756	2672	5392	915	2338
2001	4585	2587	4819	816	2107
2000	4240	2520	4684	837	1910
1999	3893	2562	4700	808	1723

APPENDIX 12: Student head-count (Weighted)

	Commerce	EBE	Humanities	Law	Science
2006	5373	3065	5273	1832	3969
2005	5695	2977	5776	1960	3997
2004	5402	2752	5973	1940	3979
2003	5147	2533	6084	2035	3902
2002	4959	2478	5741	1897	3662
2001	4708	2517	4979	1982	3368
2000	4355	2581	4767	1781	3163
1999	3893	2433	4634	1945	3099

APPENDIX 13: SUMMARY OF CORROBORATIVE INTERVIEWS

Institution #1: The suspicion that university management had become overly managerialist, inappropriate to an academic institution;

<u>Perspective of the deans</u>

None of the deans interviewed criticised university management of being “overly managerialist”, and did not use the word “managerlialism” in describing how decisions were made in the university at any point during the interview. Generally the deans were not critical of university management at any point, and their description of how decisions are made within the university focused on describing events, procedures and structures.

However, the deans did describe their view of “how we do things” in a university as well as how things were done at in the early years of their deanship. On these matters their reports are generally in agreement that decision making within a university should by a consultative process and that in the early years of their deanship they feel that there was a lack of consultation by university management, with the deans being furious at the lack of consultation on certain important decisions, and the arbitrariness of some of these. The deans report that there were tensions between the deans and university management and debates around what constituted appropriate advisory bodies and discussion groups at executive level. Deans report that during 1999/2000 in particular the deans were not taken seriously by university management which ultimately led to the deans revolting.

One dean describes the environment in 2000 as being characterised by mistrust, but puts this observation in the context that there was not a great appetite amongst academics for understanding how university finances are managed (which was the big issue at the time), which caused mistrust, but “mistrust is the nature of academics”. The dean pointed out that devolution in control and the new system of executive deans that resulted in a greater degree of transparency. Another dean reports that the faculties were pleased about what devolution meant and quickly settled into the new structure and appreciated the advantages that it brought e.g. staffing could be decided within the Deans Advisory Committee, where previously it had to be argued with a staffing committee. “We felt we had control over our own destinies”. All deans are in agreement that “we have come a long way” since then and that the relationship between deans, and deans and university management has improved tremendously. Finance was given as an example by all three deans, with one dean pointing out that in the previous system of central control (before devolution of control and executive deans) there was a “policeman around every corner” and that underground decisions had to be taken (within faculties) to “circumvent silly rules”. “There is less silliness in finance now”. Another dean pointed out that while it was difficult to get clarity on how ROT was determined, it was not a big issue as there was sufficient trust between the new CFO and the deans.

<u>Perspectives of the Deputy Vice-Chancellor and Chair of Finance Committee</u>

DVC

The previous DVC contributed a broader perspective of the decision making structures and environment. He reports that during the period 1992 – 2000 decision making was centralised. Large decisions were taken by one or two people, with not all DVCs included in certain decisions. Senior leadership excluded the deans and “there was a crisis of confidence. There was extreme unhappiness at the exclusion of the deans from planning and decision making”. The DVC points out that this was the VC’s leadership style, and did not reflect a lack of trust in the deans. This autocratic, take-no-prisoners style of leadership contrasts sharply against the consultative style that the deans describe as “how we do things” in a university. In explanation of how that leadership style would fit with the broad university community, the DVC, himself an academic, provides a tongue-in-cheek summation of the nature of most of those involved in the university decision making structures (senate, policy committees, council, university management): “the university is run by a bunch of academics who are allergic to management and control, with a collegial ethos”. He explains further that from this perspective people saw a tight command taking the reigns, decisions presented to senate were seen as fait accompli, and this ended up with academics feeling manipulated and disempowered, and the relationship between the university management and deans as the worst in the DVC’s memory. “The academics saw university management as moving from collegiality to managerialism, … the swear word of managerialism…”. The DVC clearly shares the Finance Department’s view that faculties saw university management as overly managerialist, in a way inappropriate to an academic institution. This view was not held only by the Finance Department.

At this point, an observation is made that, while not directly the matter under investigation in this case study, is related to it and of interest. There is clear evidence from the report of the CFO, deans and DVC that a “way of thinking” or institution exists amongst academics that the appropriate way to run a university is with a consultative, collegial ethos. Decisions that emanated from a leadership style that was in contrast to the academics view of “the way things are done” were viewed with suspicion, and resulted in the breakdown of relationships between various parties. This undermines the effective running of the institution. The DVC provided further insight in this regard. He points out that it is very difficult to move a university because of its structures (they are unwieldy). If everything moves normally, everyone is content. In this case, it all came down to the need for financial recovery and reform. The DVC pointed out that where there is a need to change and the change emanates from the centre, then the tension between the executive and deans becomes pronounced. For example, the decision to introduce programmes (as opposed to allowing students to take any collection of courses they chose) was made by the executive (or part thereof) on the basis of academic concerns. However, one faculty saw the decision as driven by finance problems, and considered it a thinly disguised attempt to down-size or “size” them. This resulted in the new dean resigning after a month and it was necessary to salvage the faculty concerned. The other faculties did not view the decision as a direct threat, and in fact welcomed the decision as they believed their own faculties to be subsidising the faculty concerned, and that all was not equal in the system. This concern related back to tensions that existed between the deans and the executive around budgetary allocations of resources and cross subsidisation between faculties.

His observation underscores the rationality of taking so-called non-rational factors, such as existing ways of thinking (or institutions) into account in the decision making process. The result of a leadership style that was at odds with the academics way of thinking regarding how things were done in a university lead to great mistrust by academics of university management. The style of leadership which presented decisions to academics at the stage where they were too far gone for academics to have meaningful impact, caused huge mistrust and tensions between academics and university leadership. However, the DVC points out that to make decisions by debate takes a very long time and there's not enough time to run a university like that. In his view, if people (academics) have confidence in leadership and a basic idea of what's going on, and some say in things, then they are happy, support the decisions as they are made, and enact the decisions as intended. This suggests that being cognisant of existing ways of thinking, and allowing these to influence decision making in identifying solutions that will have the support of those that will be responsible for implementing that decision in the organisation, is highly rational.

Chair of Finance Committee

The Chair echoed both the perspectives expressed by the deans, as well as that offered by the DVC. In the Chair's view the relationship between Finance and Faculties was at best frayed, very strained, that senior university management's style was very autocratic and faculties did not particularly like that. The word "management" was not used (by faculties) very often. Academics did not perceive they needed "managing". "Manage" implied private sector practice, which did not sit well with academics.

The Chair also offered additional insight on factors that from his perspective contributed to how this way of thinking developed. In his view, academics' aversion to management went back ten to fifteen years, and became more strongly entrenched in the late 1990s. Previously the university had been shielded from commercial reality by substantial government subsidies, but as these declined in the 1980s and 1990s it became apparent that some academic institutions may be allowed to fail, and that the university could no longer think it was impenetrable. External factors prompted a need for increased judicious management of the university's operations from a financial perspective. This observation is the same as that made by the DVC. Both are consistent in their belief that academics' way of thinking regarding managerialism had been a result (partly) of the absence of private sector-like management previously in the academic institution, which would have contributed to the general view that private sector management was not the way things are done, or appropriate to an academic institution. Financial pressures caused by external factors were responsible for introducing a challenge to this firmly entrenched way of thinking.

Institution #2: That academic endeavour and the pursuit of academic excellence should drive decision making within the university and that faculties (academic departments) should not curtail academic endeavour for financial reasons, and it was not the job of faculties to be concerned with, or responsible for, ensuring the availability of adequate financial resources.

<u>Perspective of the deans</u>

All three deans clearly expressed the view that decision making should be driven by academic endeavour. The first dean interviewed volunteered this perspective without prompting, saying he was in agreement with senior executive of the university who believes that “administrators are servants of academic enterprise”. The second dean said that in his view “the main driver for decision making is academic endeavour”. The third dean indicated that prior to the changes that occurred from 2000 onwards, it was “previously extremely difficult to motivate a diverse group of people, academic considerations are most important”. In his view the new system of devolution fitted with academic endeavour. There could be a relationship between management, planning and academic endeavour that was not possible before, and that decision making became integrated with academic endeavour, planning took on an academic flavour.

The consistent message from the deans is that academic concerns should take precedence in decision making. They were also unanimous in their disagreement with the suggestion that the Financial Director (CFO) of the University could come from the corporate world, and not be an academic. All three deans expressed the view that the fact that the current CFO (appointed in 2000) was then, and continues to be, a well-respected academic in the mainstream of academic endeavour was a critical factor in determining the success of the finance function and financial reform of the university. The deans pointed out several ramifications of the CFO being an academic. Firstly, the deans and other academics would listen to the CFO in senate because he was in senate prior to becoming CFO. Secondly, the CFO understands the business, and understands the culture, which is important in decision regarding resource and budgetary allocations. Two deans identified the importance of this with regard to managing costs within a university (which this case study reports), and that in particular "cost cutting has to be carefully managed in a university". It is for this reason, in the view of the third dean, that whenever any differences arise between university management and faculties, it is always possible to work them out. Thirdly, one dean pointed out that in his view there is no a great appetite within the academia for understanding how a university finances are managed, which causes mistrust. The fact that the Finance Department is headed by an academic is excellent, as he is more easily trusted by academics, and is able to communicate financial matters to academics effectively. This view was born out by the comment another dean made as an aside while being interviewed, that while he didn't feel he got clear answers to certain questions of a financial nature, he had trust in the CFO and so it didn't matter. The deans also point out that the trust that the CFO was able to build with faculties was not solely on the basis of being a fellow academic, but also because following his appointment as CFO there has been a strong improvement in the functioning of the finance function, a department they considered to be in disarray (or "broken" as one dean expressed it) previously.

It was clear that all deans appreciated having a CFO that understood the importance of academic sensibilities.

None of the deans expressed the view that they felt it was inappropriate for a dean to manage their faculty from a financial perspective, although two of the deans indicated that this view was prevalent amongst a number of academics. One dean noted that there is poor appetite in academia for understanding university finances, and that significant headway had been made in getting faculties to accept financial responsibility and the need to think in a more business-like fashion. This may be a reason for why there was no evidence of the view that it was inappropriate for faculties to be concerned about finances found amongst deans in 2009, when the interviews were conducted. The deans do consider increased financial responsibility (and freedom) as inextricably linked to devolution of control and the introduction of executive deanship, where the deans took on significant decision making authority. There was an indication from all deans that academic considerations were however more important. There was also an indication from two of the deans that financial considerations had driven certain decisions that might otherwise not have been contemplated. This is reported on separately in the sub-section below entitled “Evidence that the changes made faculties more aware of their financial bottom line, and encouraged improvement therein?”

Perspectives of the Deputy Vice-Chancellor and Chair of Finance Committee

DVC

In discussing the decision making process in the university, the DVC described the role of finance as follows:

“Finance is not meant to drive the academic process. There’s always a tension between finances and academia. The Finance Committee can’t say how a budget reduction should be achieved, just that it must be. If the finance committee made (operational or academic) decisions, they would probably not be well received.”

The DVC also expressed the same view as the deans, that the fact that the CFO is also an academic has been “utterly key” to the success of the university’s finance policy. This is because he speaks academics’ language, he can get up in senate, is not humanities view of a typical accounting professor and consequently has gained the confidence of faculties in a way not possible for outsiders. The DVC expressed the view that a CFO that does not have a background in academia has no feel for an institution, which is a problem because a university is substantially different from other major corporates, and what text books might say does not necessarily apply to an academic institution, as an academic institution is not primarily driven by financial concerns.

He carries on saying that “in my view the financial policy has been remarkably successful, the most important change in 17 years”. He attributed this to three factors. Firstly, because of who the CFO is, able to talk the academics language. Secondly, because the Head of Management Accounting and User Support has the confidence of academics as he is reasonable, and has the facts at his finger tips, and thirdly because the current VC that came into office during the changes in financial management policy is clearly not “peddling a financial line”. “Whatever system was introduced, if he (the CFO) hadn’t been who he was, it would’ve been different”.

The DVC clearly views the fact that the CFO, in persona and how he operates, fits comfortably with the way of thinking that exists within the institution, that decision making should be driven by academic concerns, not financial considerations, as being a major contributor towards the fact that the finance function of the university has been as successful as it has been.

The DVC did not address the idea that that faculties were of the view that academic endeavour should not be for financial reasons, and it was not the job of faculties to be concerned with ensuring the availability of adequate financial resources. The fact that he views the financial reforms which required faculties to be responsible for their own bottom line so positively is an indication that he does not hold the view that it is inappropriate for faculties to be accountable in this way. At the same time, there was evidence that he did not believe that financial considerations should outweigh academic excellence, even in a situation where the financial consequences for the university would be severe.

Chair of Finance Committee

The Chair was clear in his view that the view amongst academics, that academic endeavour should not be curtailed for financial reasons and that it was not the job of faculties to be concerned with, or responsible for, ensuring the availability of adequate financial resources, certainly existed in 1999/2000. He reports that the single biggest thing tackled by the finance function in the 5 years following 2000, was to embed a culture of accountability more similar to the private sector. This went beyond finance. The general approach was: “A dean is running a business (faculty), which earns revenue from many sources. What must you do to keep the stakeholders happy that pay?” He reports that the initial reaction from faculties was “we don’t do that, we’re purely academic”. The finance function had to communicate that while the university was not a commercial enterprise, it needed to be. This was in contrast to the view that was found in senate that the Department of Education would bail out the university if need be because “we’re the jewel in the crown”, and so deficits did not matter. The other view that persisted was that financial considerations shouldn’t be allowed to interfere with academic excellence. Not everyone had this view, but enough. He also reports that it took the deans a long time to accept the change in budgeting process from a last year plus approach, to an approach where mid-term financial targets were set that would guide the budgeting process, an approach requiring greater financial accountability.” You kept hearing the deans say “this is wrong” for a million reasons.”

The chair described the relationship between the Finance function and academic endeavour as “adversarial” prior to these changes. He attributes this to the fact that initially an outsider was brought in at a senior level with the objective of guiding improvement in the university’s financial performance. “An outsider squeezing the purse strings would never be accepted by the university”. This was a picture of private sector management practices being imposed on an academic institution, which went against the grain of what academics considered to be the way things are done in a university.

He identified two factors that in his opinion contributed to the successful building of the mindset that faculties needed to be financially accountable. These factors are consistent with the ways of thinking that already existed within the university.
Firstly, the Chair was also of the same opinion as the deans and DVC that the fact that the CFO had the ear of the academics because he was an academic talking about

finance, not an outside person, played a huge role in getting faculties to become more sensitive to financial constraints. He also noted that related to this, the finance function had to choose words used in documents very carefully and overly commercial words were avoided. With the benefit of hindsight, he also believes that the fact that he interacted in various capacities within the university, and was not only known to academics from a financial perspective, increased his credibility. Secondly, the change to the executive dean system, which was readily accepted by deans, helped get deans to accept financial responsibility.

The evidence from all interviewees corroborates the perception of the Finance Department that there was a general view within the university that academic endeavour and the pursuit of academic excellence should drive decision making within the university. Only the perspective offered by the Chair of the Finance Committee corroborates the view of the Finance Department that that faculties (academic departments) should not curtail academic endeavour for financial reasons, and it was not the job of faculties to be concerned with, or responsible for, ensuring the availability of adequate financial resources, but his account agrees strong with that of the CFO. This view is hinted at by observations offered by the deans, but not strongly, and the DVC did not address the perception at all.

All interviewees agreed that there was previously a conflict between academic endeavour and central management, which they believe has largely been resolved. The deans indicate that this is because current financial management practices are more consistent with what is appropriate for a university. Certainly, it is the evidence of all interviewees that the fact that the CFO was an academic contributed to the acceptance and success of the change in financial management policies, as the changes were seen as being driven by a Finance Department that meshed well with faculties' view of how things are done in a university. There is the suggestion from the report of the Chair that a further reason that there is less of a conflict between academic endeavour and finance, is that the mindset of faculties has changed as they have accepted the need for greater financial accountability of faculties.

Institution #3: A view amongst faculties that cost reduction (within faculties) was impossible without reducing the scope of academic activities

Perspective of the deans

Only one of the three deans interviewed indicated that his faculty had been of the belief that they had not believed that it was possible for their faculty to reduce costs. He reports that at first his faculty "protested like crazy" about cost cutting. They could understand it in a theoretical way, but from a practical point of view his initial reaction was "this is impossible" and it "took a few years for the penny to drop". What caused the penny to drop were two things: Firstly the faculty realised that there was a lot of fat when the faculty developed a model for the distribution of operating costs and did an audit of what their actual practice was. The 0% and 2% budgetary increases focused their minds on this and prompted the model and self audit. The faculty was very surprised by the amount of leeway they found (e.g. telephones in unused offices). This, the dean reports, lead to a change in behaviour. Secondly, the faculty started to understand what staff churn meant in financial terms, and that staffing can be managed. This understanding came about when faculties coped better against budget projections than expected because of churn. (This is again evidence of the financial management changes increasing understanding of managing a business unit from a financial perspective, above).

DVC and Chair

Neither the DVC nor the Chair of the Finance Committee commented that they thought that there was a belief amongst faculties that costs reduction was impossible. They also indicated that one of the three deans interviewed was of the strong opinion that costs could in fact be cut in certain faculties, and was particularly important in highlighting inequities and cross subsidization that existed in the system.

However, the evidence reported by dean 3 suggests that this belief existed in at least one faculty.

Institution #4: That every faculty was different and it would be inappropriate to base decisions on any detailed set of metrics as it was impossible to capture the uniqueness of each of the various faculties in these.

<u>Perspective of the deans</u>

There were various indications in the interviews with two of the three deans that this belief existed, and continues to exist. None of the deans expressed the view directly that the faculties were incomparable on the basis of specific metrics, but this problem came to the fore when detailed metrics were referred to. Doubt was frequently expressed as to the relevance of the way in which the metric was either measured or recorded for the faculty in question.

<u>Perspectives of the Deputy Vice-Chancellor and Chair of Finance Committee</u>

The DVC stated categorically that “there are no comparable measures” and that “the faculties are all different”. He gave a number of examples of his own thinking, as well as that of others, reporting that the DVC of planning and senior DVC at the time made various attempts to develop a teaching model for the university as a whole. The DVC described the attempt as “dead in the water” because “there are huge irreconcilable differences”.

Institution #5: That the university was generally unable to generate accurate information that could be relied on.

Perspective of the deans

Two of the three deans were scathing in their expression of the ability of the university to generate accurate information that could be relied on, using words like “wouldn’t trust”, “in disarray”, “in chaos”, and “was broken”, and gave numerous examples to support their case. Finance was one area frequently identified as particularly problematic, although all deans stressed that the current Finance Department has lots of credibility. This corroborates the view of the CFO that the Finance Department has gained credibility.

The view that the university was unable to generate accurate information came to the fore again in the interview, when faculties were asked to comment on changes in a variety of metrics reported on in faculty reports. The interviewer had been hoping to ascertain whether changes in the metrics had been encouraged by any of the changes made in the accounting practices introduced at the time. The response of two of the three deans was concern that the stats were wrong, operationally improbable and that certain levels of staffing / students etc had never been reached, and that the significant changes are likely the result of a change in the way the numbers were reported. Further evidence in faculty reports suggests that this is likely to be the case.

Perspective of the Chair of the Finance Committee

The chair reports that during his first year in office information “couldn’t really be trusted”, and that there were delivery problems regarding deadlines being missed for reports. He suggested that the problem was that information was complied manually. Both the chair, and one of the deans reported that the quality of information and reporting improved when the university instituted computerised systems, such as SAP.

The chair also reports that by the end of his first year the faculties accepted a rational Finance Department beginning to produce faculty reports (i.e. produce information), and that the deans saw the finance function at this point as supportive, not adversarial, as their ability to generate accurate information improved.

He pointed out that its necessary to get sensible, timeous information flow back to the people who make decisions (the deans) before you can ask them to be accountable.

The Chair's report is corroborative of the CFO's view that the credibility of the Finance Department improved as, amongst other things, it was able to generate trustworthy information on time.

Institution #6: General suspicion regarding the validity of, and motive behind, allocating university overheads (any cost not directly incurred by faculties) to faculties.

<u>Perspective of the Deans</u>

Only one of the three deans interviewed commented on the university's previous attempts to allocate overheads, which he described as "smoke and mirrors", and a "top slice". This provides some evidence that the CFO's perception that faculties would be suspicious of any attempt to allocate overheads was not amiss.

In general the deans do not regard the system of "taxes" as an attempt at overhead allocation. Rather it is considered to be a charge for a service. The deans approve of this method, as in their opinion they are paying a fair (perhaps market related or taken from best practice, favourable to corporate indicators) amount for the service, and are consequently entitled to demand adequate service levels. One dean views the taxes system as better, even if it is not accurate.

The deans were asked by the interviewer if the fact that they were taxed for use of resources (for example, the tax based on space occupied by the faculty) had an influence on any decisions that they made. Their responses indicated that there was an awareness of what resources cost. One dean indicated that two faculties deliberately made better use of space in response to that charge. One faculty was able to reduce space by knocking down walls, and his own was very conscious of the space charge in designing their new building.

These responses indicate that the system of taxes, based on the principle espoused by the ABC literature, that charging for the use of resources encourages efficient use of those resources (with the objective of improving cost control), achieved the same behavioural response that an accurate charge would be expected to achieve. It was not the accuracy of the charge that was of relevance to faculties, but the fact that they were *being* charged. This supports the view of the CFO that various management accounting techniques can achieve the same result, and so it is the “art” of management to design a system based on the principles that underlie the techniques that best fits the organisation and the objective that is intended to be achieved.

Perspective of the Chair of the Finance committee

The chair explained the choice of a system of taxes, rather than a more obvious overhead allocation method, on the basis of the following rationale: Firstly, in his opinion and experience, a form of overhead allocation always invites challenge. The bulk of overheads will always be arbitrary, and so to argue about methodology is completely unproductive, and this he has found to be borne out in his practical management experience. Secondly, the taxes could be seen to be a heavy handed approach. However, the rational was that if you tell people (in this case a faculty) to pay a certain amount, this leads to the person (faculty) then saying “What am I getting for this?” and the service provider better be able to have a good justification for the charge. The service centre is held to a similar kind of accountability that the deans were under. Thirdly, overhead allocation would have lead to an argument at this university. Finally, the Chair indicated that he did not like overhead allocation because there is no incentive to contain costs.

The chair reports that they were aware of the reaction of faculties in designing the system of taxes, and spent a lot of time communicating with faculties and preparing the ground. At a high level, he reports that they were guided by what the right thing to do was. How it would be accepted affected the detail around it.

The Chair’s rationale for the system of taxes is consistent with several of the ways of thinking that the CFO and corroborative interviews report as existing at the university at certain times. Both CFO and corroborative interviews report that no agreement could be reached on detailed metrics that apply equally to all faculties, and the ethos of collegiality and consultation can result in extensive debate and academic argument. Thirdly, holding the service centers accountable, similar to the deans would have assisted with overcoming the concern that faculties previously expressed with bearing the costs for services that they believed were unnecessarily expensive as a result of being ineffective.

In addition, the Chair's description of the influence that technical principles, and institutional factors (ways of thinking) had on the selection and design of the management accounting practices to be adopted, is consistent with and so corroborates the CFOs account.

<u>A hypothetical question posed to interviewees: What would their response to an ABC cost allocation have been?</u>

The interviewer asked each interviewee what their response would have been had a detailed cost allocation system that allocated overheads in line with resource utilisation been suggested, instead of the system of taxes. The interviewer asked this question for two reasons. The first was to ascertain whether the ways of thinking described above were evident in the dean's responses in 2009, or whether the deans identified these concerns as being something that would have been a concern at the time. Either of the above responses would provide evidence of the existence of these ways of thinking, and also provide an indication of whether these ways of thinking had changed (in the case of the latter response) or not (in the case of the former response). The question was also seeking to test whether the considerations that the Finance Department had identified in their decision not to follow a detailed cost allocation route found any resonance with the deans, other members of the university management (i.e. the DVC and Chair of the Finance Committee's responses). This would provide some indication of whether the Finance Department's perceptions of the ways of thinking within the university were shared by other parts of the university, or not.

<u>Perceptions of the Deans</u>

The first dean viewed the possibility of a precise allocation as tempting as he suspected that his faculty may have been charged less. The dean has a suspicion that his faculty may be being overcharged, as he believes differences within his faculty may make them more efficient than others[22]. The dean would not have believed that the university would have been able to provide the correct information at this time given the state of disarray of certain departments.

The deans' response shows evidence of both Institution #4 and #5, the belief that the university was unable to generate accurate information at that time, and that his faculty was sufficiently different from other faculties so to be not accurately measured by a particular measure.

The second dean's response was that to ensure that ABC made sense would be a massive problem and was not sure if it would have been worth the effort and time. His immediate response would be that cost allocation would be out of line with appropriate university decision making, and that the cost system would run the university. The last two remarks are of interest as this dean is a strong proponent of the economic sustainability of faculties, and relevance of financial considerations in faculty and university decision making.

The dean also added, that there are two many differences (between faculties) in the way that we teach to justify an accurate cost allocation system (evidence of Institution #5).

The dean's response shows existence of several of the institutions/ ways of thinking described in this section:

4) Institution #1 and #2 and #6 – that a financial system would be used to inappropriately drive decision making in the university, instead of academic endeavour being paramount i.e. an overly managerialist concern. This concern may well stem from the instance, described in the body of the case, that

[22] (The FD believes the faculty concerned may have been worse, not better off, if costs were allocated

operating decisions had previously been imposed on one faculty influenced by an inability to cover overheads. (i.e. In the previous attempt at overhead allocation, the overhead allocation was seen to drive operating decisions.).

5) It also shows clearly evidence of Institution 4: that the faculties are too different to apply the same measure.

more accurately.)

Evidence that the changes made faculties more aware of their financial bottom line, and encouraged improvement therein?

Perspective of the deans

Two of the three deans interviewed indicated that they believed the introduction of allowing faculties to retain any improvement that they generate against budget has been tremendously successful in encouraging faculties to be more aware of managing costs and generating revenue. Both these faculties report that they were immediately positive towards the suggestion and have been able to generate sizable surpluses, which they have been able to put to good use in furthering academic endeavour and quality of education in their faculties. Furthermore, they point out that in their experience the system has successfully discouraged wasteful expenditure at year end that used to be incurred under the previous, spend-it-or lose-it approach. One of the deans indicated that the new system drove the faculty to introduce short courses to attract a new sector of the market, in order to increase revenue, which has proven successful. One of the reasons that the deans view the ROT innovation as positive is because of the fact that how deans use that surplus is almost entirely at their own discretion and can be used for innovative or valuable academic endeavours that otherwise would not have been able to engage in. It allows greater freedom in decision making. Another dean indicated the budgetary pressure, together with support from the Finance Department, prompted a focus of achieving financial improvement. The faculty felt more in control of their own destinies with respect to human resources than previously. This would be partly attributable to the fact that these changes occurred together with the devolution of control.

One dean commented that requiring faculties to manage their bottom line was a “great concept” as subsidies could not be relied on to provide adequate funding. “Running a university like a business thinking is going down well in some parts of the university.” This particular dean was of the strong opinion that all faculties should be economically viable. This does not reflect a change in view from 2000, as the dean has by all reports consistently been a proponent of economic sustainability.

The DVC described the financial policy as being remarkably successful, the most important change in 17 years. He also viewed the carry over of prior year reserves as having worked brilliantly in curtailing the big spend at year end.

The Chair of the Finance Committee believes that people began to be more sensitive to financial constraints, to the things the university had to get right. Increased focus on the top line (revenue and fees) resulted in increased leveraging off their product by faculties, without losing sight of their central purpose, being research and equipping SA.